

US EPA RECORDS CENTER REGION 1



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Monthly Oversight Report 29
ACS NPL Site
Griffith, Indiana
May 3, 2003 - May 30, 2003

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BLACK & VEATCH

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Black & Veatch Special Projects Corp.

USEPA/RAC VII
American Chemical Services RAO (057-ROBF-05J7)

BVSPC Project 46526
BVSPC File C.3
June 9, 2003

Mr. Kevin Adler
U.S. Environmental Protection Agency
77 W. Jackson Boulevard (SR-6J)
Chicago, Illinois 60604-3590

JKF.
6-26-03

Subject: Monthly Oversight Summary Report
No. 29 for May 2003

Dear Mr. Adler:

Enclosed is the Monthly Oversight Summary Report No. 29 for May 2003 for the American Chemical Services Superfund Site in Griffith, Indiana.

If you have any questions, please call (312-683-7856) or email (campbellm@bv.com).

Sincerely,

BLACK & VEATCH Special Projects Corp.

Larry M. Campbell, P.E.
Site Manager

Enclosure

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Monthly Oversight Summary Report No. 29
ACS Superfund Site WA57, 46526.238

Reporting Period: Month of May (May 2, 2003 - May 30, 2003)

BVSPC O/S Dates: May 6, 8, 9, 13, 15, 22, 28, and 29, 2003

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	7	Respondent's General Contractor
U.S. Environmental Protection Agency	1	Federal Regulatory Agency
Indiana Department of Environmental Management	1	State Regulatory Agency
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Independent Environmental Services	1	ONCA SBPA ISVE System Yard Piping Contractor
Midwest Environmental, Inc.	3	ONCA SBPA Gravel Placement Contractor
Imperial Crane	3	Crane Contractor
Central Crane	1	Crane Contractor
Fliteway	2	ONCA SBPA ISVE System Blower Shed Manufacturer
Austgen	3	Electrical Contractor
Ryan Construction	2	General Contractor
Global	1	Thermal Oxidizer Unit 2 Manufacturer
Simalabs	1	GWTP Sampling Contractor

Construction Activities

Major Activities:

- Midwest Environmental, Inc. completed placing gravel over the On-Site Containment Area Still Bottoms Pond Area interim cover.
- Fliteway delivered and Montgomery Watson Harza and Imperial Crane placed the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system blower shed building #2.

- Fliteway delivered and Montgomery Watson Harza and Central Crane placed the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system blower shed building #1.
- Austgen strung the power lines from the groundwater treatment plant to the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system blower shed building #2.
- MWH repositioned the temporary fencing to enclose the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system well field and open the on-site access road.
- Global began startup of Thermal Oxidizer Unit 2 and scrubber system.
- Montgomery Watson Harza operated Thermal Oxidizer Unit 2, processing vapors from the Off-Site Containment Area in-situ soil vapor extraction system.
- Ryan Construction replaced the 8-inch-diameter vapor influent piping to Thermal Oxidizer Unit 2 with a 12-inch-diameter pipe.
- Montgomery Watson Harza and Ryan Construction repaired the catalytic oxidizer for the groundwater treatment plant.
- Montgomery Watson Harza held weekly construction coordination meetings on May 8, 15, 22, and 29, 2003.

Activities Performed:

Midwest Environmental, Inc. (MEI) began placing geotextile fabric and gravel over the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) interim clay cover on May 5, 2003. MEI placed an additional thickness of gravel over the ONCA SBPA in-situ soil vapor extraction (ISVE) system piping in order to allow for the gravel trucks to drive over the piping while minimizing potential damage to the pipes. MEI also used a low ground pressure bulldozer in order to minimize the pressure placed on the yard piping during gravel placement. Heavy rains occurred during construction activities and Black & Veatch Special Projects Corp. (BVSPC) observed significant erosion and ponded water in the ONCA SBPA interim clay cover. MEI dug a trench through the berm located on the western portion of the ONCA SBPA perimeter in order for the ponded water to drain off of the cover. BVSPC expressed concern regarding maintaining the minimum cover thickness of 12-inches for the ONCA SBPA interim clay cover. Montgomery Watson Harza (MWH) reported that MEI filled the erosional trails with clay and compacted the fill using a roller prior to placing the geotextile and gravel. The entire ONCA SBPA interim clay cover was covered with geotextile and gravel and the gravel was compacted.

MWH repositioned the temporary perimeter fencing on the ONCA SBPA in order for ACS personnel to access its parking areas and road. The temporary perimeter fence now encompasses only the ISVE well field instead of the entire ONCA SBPA interim cover. MWH reported that Tom Froman of ACS approved the repositioned fenceline. MWH also reported that Mr. Froman expressed concern about the berm located on the western portion of the ONCA SBPA interim cover. MWH reported that it will evaluate options regarding the necessity of the berm.

MWH reported that Independent Environmental Services (IES) will return to the site in the next reporting period to complete pouring the concrete pads for the perimeter flushmount ONCA SBPA ISVE system dual phase extraction wells.

Fliteway delivered blower shed building #2 for the ONCA SBPA ISVE system to the site on March 9, 2003. Imperial Crane lifted and placed blower shed building #2 on the foundation. The supervisor for Imperial Crane initially refused to wear his hard hat while onsite. MWH told the supervisor that he was not able to work on the site without his hard hat. The supervisor eventually wore it. Because of the incident, Lee Orosz of MWH reported that Imperial Crane would not work at the site in the future.

Fliteway delivered the ONCA SBPA ISVE system blower shed building #1 on May 28, 2003. Central Crane lifted the shed from the trailer and positioned it above the concrete slab foundation. When MWH and Fliteway began placing the shed over the exiting piping, they observed that the openings in the floor did not line up with the piping in the concrete slab. MWH temporarily placed the blower shed on railroad ties on the concrete pad in order to determine what would be the appropriate action to take for lining up the blower shed with the piping. Fliteway returned to the site on May 29, 2003, and discussed mitigative measures for the blower shed. MWH reported that its preliminary plan for the blower shed is to align the manifold system in the blower shed with the yard piping stub-ups and to extend the west wall of the building westward in order for the process pipes to be enclosed in the blower shed. MWH reported that it will continue to evaluate its options and that it would likely place the shed on the concrete slab foundation next week and begin modifications to the shed.

Austgen began stringing the power lines from the groundwater treatment plant (GWTP) to blower shed building #2. MWH reported that Austgen will continue to set up the electrical control panel and motor control center (MCC) in the ONCA SBPA ISVE system blower shed #2. MWH reported that it will begin connecting the yard piping to the blower shed building #1 manifold once the retrofit to the building has been decided and implemented.

MWH continued to operate the Off-Site Containment Area (OFCA) ISVE system, pulling vapors from a set of eight wells. MWH switched to a new set of eight wells during the week of May 12, 2003, for the final stage of the process optimization period. MWH reported that its subcontractor, Simalabs, did not collect the effluent volatile organic compound compliance monitoring sample for the monthly compliance sampling in March and April. MWH reported that it resolved the communication errors with its subcontractor and that it will collect the next complete set of compliance samples on March 15, 2003, with expedited analysis by the laboratory. MWH also reported that it will evaluate the hydrochloric acid removal in the reconfigured scrubber for Thermal Oxidizer Unit 1.

MWH reported that the construction of Thermal Oxidizer Unit 2 was completed and Global began onsite startup of the unit on March 12, 2003. Global inspected the unit's construction and calibration. Global simulated alarm conditions in the unit and updated control system interlocks. Global fired the main burner on the unit on May 20, 2003, and checked for thermal leaks in the system using thermal photography. No leaks were detected, and MWH began sending OFCA ISVE system vapors to Thermal Oxidizer Unit 2 on May 21, 2003. After 5 minutes of operation, Thermal Oxidizer Unit 2 caused shut down of Thermal Oxidizer Unit 1 because of programming problems. Global and Austgen resolved the programming problems, and MWH began operating process vapors from the OFCA ISVE system in Thermal Oxidizer Unit 2 on May 23, 2003.

MWH reported that it shut down Thermal Oxidizer Unit 1 on May 27, 2003, in order for Ryan Construction to perform maintenance activities and to reconfigure the scrubber piping. MWH reported that it transferred the pH probe to a calibration solution with a pH less than 7, the set point for caustic addition to the scrubber. Because the control system for Thermal Oxidizer Unit 1 and the scrubber was still in place and the pH probe was registering a pH less than the set point, the system continued to add caustic to the scrubber sump. MWH discovered the high pH in the scrubber sump and turned off the caustic pump. MWH flushed the scrubber with water in order to lower the pH. MWH obtained a neutral pH in the scrubber sump on May 29, 2003.

MWH shut down Thermal Oxidizer Unit 2 on May 29, 2003, in order for Ryan Construction to replace the 8-inch-diameter influent vapor piping with a 12-inch-diameter pipe. MWH reported that it encountered difficulties starting up Thermal Oxidizer Unit 2 after Ryan Construction completed installing the 12-inch-diameter pipe. MWH decided to bring Thermal Oxidizer Unit 1 up to temperature and expected to resume processing vapors next week.

BVSPC observed erosional damage to the western portion of the OFCA engineered cover. MWH walked the OFCA engineered cover on May 29, 2003, and noted the areas where additional maintenance is needed. MWH reported that it will submit a formal plan to the Agencies to address the maintenance activities. BVSPC also inquired about the tree trunks and wood chips located on the OFCA engineered cover. MWH reported that it would discuss this issue with the Agencies.

MWH reported that Rudy Stein of MWH became lightheaded after collecting water level measurements from the OFCA and ONCA ISVE system wells. MWH reported that Mr. Stein saw a doctor to evaluate his condition. Mr. Stein was cleared for field work. MWH reported that it reported the incident to MWH's Director of Health and Safety. MWH reported that it will amend its Health and Safety Plan to include water level measurements in the ISVE wells. MWH reported that potential mitigative measures to avoid potential exposures during water level measurements may include venting the wells, providing fans during measurements, or requiring respirators.

MWH reported that the GWTP operated at 20 gpm, pumping from the barrier wall extraction system, perimeter groundwater collection system, and a portion of the ONCA SBPA ISVE system dual phase extraction wells. MWH also reported that the GWTP shut down because of a high pressure alarm in the catalytic oxidizer unit. MWH disassembled the catalytic oxidizer, cleaned out the catalyst, and resumed operating the GWTP on May 13, 2003. MWH reported that the GWTP shut down during the week of May 26, 2003, because of the high pH of the scrubber brine from Thermal Oxidizer Unit 1. MWH reported that the high pH worked its way through the GWTP and that it did not anticipate any future problems. MWH also reported that it will change out the carbon in the carbon units on June 16, 2003, in order to clear a clog in the piping. MWH reported that this will involve confined space work.

Attached are BVSPC weekly reports No. 114 through 117, correspondence, log book notes, and photographs of the daily activities. BVSPC's crew conducted oversight of the major field activities on May 6, 8, 9, 13, 15, 22, 28, and 29, 2003. BVSPC's crew attended four weekly construction coordination meetings at the site on May 8, 15, 22, and 29, 2003.

Topics of Concern:

- MWH reported that there are two thin areas of the ONCA SBPA interim cover where the thickness of the clay is less than the design thickness. In addition, based on Hard Hat Services, Inc.'s clay sample for the ONCA SBPA interim cover, the permeability of the clay does not meet the design requirements.
- Rudy Stein of MWH became lightheaded after being exposed to vapors during ISVE system well water level measurements.

Concern Resolution:

- MWH reported that it received the results of the sampling performed on the clay from the ONCA SBPA interim cover. MWH reported that one of the samples met the design requirements; however, the second sample did not. MWH proposed to use a geosynthetic clay liner (GCL) in order to meet the permeability requirements of the Final Remedial Design. MWH submitted a memorandum, dated May 2, 2003, to the Agency proposing a GCL to meet the infiltration requirements of the final design.
- Mr. Stein saw a doctor and was cleared for field work. MWH is planning an internal health and safety meeting and will amend its site Health and Safety Plan to include water level measurements from ISVE system wells.

Upcoming Activities:

- IES to complete pouring the concrete pads for the ONCA SBPA ISVE system flushmount wells.
- MWH and Fliteway to modify ONCA SBPA ISVE blower shed building #1.
- Austgen to continue installation of the control panel and MCC for the ONCA SBPA ISVE system.
- MWH to operate the OFCA ISVE system, treating vapors in Thermal Oxidizer Unit 2.
- MWH to connect the ONCA SBPA ISVE well field to the manifold in blower shed building #1.
- MWH to perform maintenance activities to address erosional damage to the OFCA engineered cover.

Signature: Leigh Peters

Date: June 4, 2003

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Weekly Oversight Summary Report No. 114
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of May 5, 2003.

BVSPC O/S Dates: May 6, 8, and 9, 2003 (Mr. Campbell and Ms. Peters).

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	2	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Midwest Environmental, Inc.	3	ONCA SBPA Gravel Placement Contractor
Imperial Crane	3	Crane Contractor
Ryan Construction	3	General Contractor
Austgen	5	General and Electrical Contractor
Simalabs	1	GWTP Sampling Contractor

Construction Activities

Major Activities:

- Midwest Environmental, Inc. began placing gravel over the On-Site Containment Area Still Bottoms Pond Area interim cover.
- Fliteway delivered and Montgomery Watson Harza and Imperial Crane placed the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system blower shed building #2.
- Austgen began stringing the power lines from the groundwater treatment plant to the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system blower shed building #2.
- Montgomery Watson Harza held the weekly construction coordination meeting on May 8, 2003.

Activities Performed:

Midwest Environmental, Inc. (MEI) began placing geotextile fabric and gravel over the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) interim clay cover on May 5, 2003. MEI placed an additional thickness of gravel over the ONCA SBPA in-situ soil vapor extraction (ISVE) system piping in order to allow for the gravel trucks to drive over the piping while minimizing the potential for damage to the pipes. MEI also used a low ground pressure bulldozer in order to minimize the pressure placed on the yard piping during gravel placement. Heavy rains occurred during the week and Black & Veatch Special Projects Corp. (BVSPC) observed significant erosion and ponded water in the ONCA SBPA interim clay cover. MEI dug a trench through the

berm located on the western portion of the ONCA SBPA perimeter in order for the ponded water to drain off of the cover.

Montgomery Watson Harza (MWH) reported that it did not have sufficient geotextile fabric to cover the remainder of the ONCA SBPA clay cover and that additional fabric would be delivered next week. MEI continued to place gravel over the areas of the cover that were covered with geotextile fabric. MEI completed placing gravel on the eastern portion of the ONCA SBPA interim cover. MEI expected to have the gravel placed on the ONCA SBPA interim cover by the end of next week.

MWH continued to operate the Off-Site Containment Area (OFCA) ISVE system, pulling vapors from a set of eight wells. MWH reported that it will switch to a new set of eight wells next week as the final stage of the process optimization period. MWH also reported that its subcontractor, Simalabs, did not collect the effluent volatile organic compound compliance monitoring sample for the monthly compliance sampling in March and April. MWH reported that it resolved the communication errors with its subcontractor and that it will collect the next complete set of compliance samples on March 15, 2003, with expedited analysis by the laboratory. MWH also reported that it will evaluate the hydrochloric acid removal in the reconfigured scrubber for Thermal Oxidizer Unit 1.

MWH reported that the construction of Thermal Oxidizer Unit 2 was substantially completed and Global is scheduled to begin startup of the unit on March 12, 2003. Fliteway delivered the blower shed building #2 for the ONCA SBPA ISVE system to the site on March 9, 2003. Imperial Crane lifted and placed blower shed building #2 on the foundation. The supervisor for Imperial Crane initially refused to wear his hard hat while onsite. MWH told the supervisor that he was not able to work on the site without his hard hat. The supervisor eventually wore it. Because of the incident, Lee Orosz of MWH reported that Imperial Crane would not work at the site in the future. Austgen began stringing the power lines from the groundwater treatment plant (GWTP) to blower shed building #2. MWH reported that Austgen will continue to set up the electrical in the ONCA SBPA ISVE system blower shed #2.

MWH reported that Rudy Stein of MWH became lightheaded after making water level measurements in the OFCA and ONCA ISVE system wells. MWH reported that Mr. Stein saw a doctor to evaluate his condition. MWH reported that it reported the incident to MWH's Director of Health and Safety and will continue to follow up with Mr. Stein. MWH reported that it will amend its Health and Safety Plan to include water level measurements from the ISVE wells. MWH reported that potential mitigative measures to avoid potential exposures during water level measurements may include venting the wells, providing fans during measurements, or requiring respirators.

MWH reported that the GWTP operated at 20 gpm, pumping from the barrier wall extraction system, perimeter groundwater collection system and a portion of the ONCA SBPA ISVE system dual phase extraction wells. MWH also reported that it expected to increase the pumping rate because of recent significant rains.

MWH held the weekly construction coordination meeting on May 8, 2003.

Topics of Concern:

- MWH reported that there are two thin areas of the ONCA SBPA interim cover where the thickness of the clay is less than the design thickness. In addition, based on Hard Hat Services, Inc.'s clay sample for the ONCA SBPA interim cover, the permeability of the clay does not meet the design requirements.
- Rudy Stein of MWH became lightheaded after being exposed to vapors during ISVE system well water level measurements.

Concern Resolution:

- MWH reported that it received the results of the sampling performed on the clay from the ONCA SBPA interim cover. MWH reported that one of the samples met the design requirements; however, the second sample did not. MWH proposed to use a geosynthetic clay liner (GCL) in order to meet the permeability requirements of the Final Remedial Design. MWH submitted a memorandum, dated May 2, 2003, to the Agency proposing a GCL to meet the infiltration requirements of the final design.
- Rudy Stein was sent to a doctor for an evaluation. MWH reported that it will update its Health and Safety Plan in order to incorporate water level measurements from ISVE wells and to prevent potential future exposures to vapors.

Upcoming Activities:

- MEI to complete placing the geotextile and gravel over the ONCA SBPA interim cover.
- Independent Environmental Services to complete pouring the concrete pads for the ONCA SBPA ISVE system flushmount wells.
- Austgen to complete installing the electrical connections for the ONCA SBPA ISVE system.
- Global to begin operating Thermal Oxidizer Unit 2.
- Fliteway to deliver the ONCA SBPA ISVE system blower shed building #1.

Signature: Leigh Peters

Date: May 22, 2003

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**WEEKLY CONSTRUCTION MEETING MINUTES
FOR MAY 8, 2003 MEETING
AMERICAN CHEMICAL SERVICE, NPL SITE
GRIFFITH, INDIANA**

MEETING DATE: Thursday, May 8, 2003

MEETING TIME: 10:00 AM

MEETING LOCATION: ACS Site – Site Trailer

ATTENDEES: Todd Lewis – MWH
Peter Vagt – MWH
Chris Daly – MWH (via telephone)
Kevin Adler – U.S. EPA (via telephone)
Leigh Peters – BVSPC
Jon Pohl – MWH (via telephone)
Travis Klingforth – MWH (via telephone)
Steve Field – MEI

TOPICS:

Health and Safety Summary

While collecting groundwater levels at soil vapor extraction (SVE) wells on May 7, Rudy Stein of MWH became lightheaded apparently from inhaling vapors. He reported his condition to Lee Orosz, the Site Health and Safety Officer, before leaving the Site to return to the Warrenville office, where the incident was reported to Travis Klingforth, Office Health and Safety Officer. Mr. Stein was encouraged to go to the hospital to have a doctor check his condition. The incident was reported to MWH's Director of Health and Safety by Mr. Klingforth. Procedures are being evaluated to prevent similar future events.

No health and safety incidents have occurred with other activities at the Site. These activities include the continued operation of the groundwater treatment plant (GWTP), assembly of the mechanical and electrical components of the new thermal oxidizer unit, and installation of the gravel layer in the On-Site area which includes truck traffic and dumping of the gravel.

Groundwater Treatment Plant (GWTP) Status

The GWTP is currently operating at 20 gallons per minute (gpm) pumping from the Off-Site Barrier Wall Extraction System (BWES) extraction trenches, the On-Site BWES extraction trenches, eight dual phase extraction wells in the Still Bottoms Pond Area (SBPA), and the Perimeter Groundwater Collection System (PGCS). There have been no problems with plant operation since the last meeting on May 1st. MWH anticipates increasing the flow through the GWTP to compensate for increased extraction rates from

the field. The increased extraction rates will be used to draw down groundwater levels that resulted from recent heavy rainfall.

In-Situ Vapor Extraction (ISVE) System – Off-Site Area

Thermal Oxidizer Unit 1 (Unit 1), the original unit used in operation of the Off-Site Area ISVE system continues to operate efficiently. Unit 1 has been shut down for brief periods during the last week to facilitate the construction of the new thermal oxidizer unit. Eight wells are currently on line. The system will be switched to a different set of eight wells on May 9, which will be the last step in the system optimization testing, which will be completed in two weeks. The data will then be reviewed to determine the most efficient way of running the system. The scrubber will be tested in the next two weeks to assess the hydrochloric acid removal efficiency of the unit. The first compliance sample of Unit 1 since it has been reconfigured will be collected on May 15th.

Due to communication errors between MWH and it's subcontractors, the effluent VOC compliance monitoring sample from Unit 1 was not collected in March or April. MWH is implementing quality control procedures to prevent a recurrence of this error. In the meantime, a sample was collected on May 15 and sent to the laboratory for expedited analysis.

On-Site Area ISVE System

The assembly of the Thermal Oxidizer Unit (Unit 2) for the On-Site Area's mechanical and electrical components is substantially complete. Global Engineering is scheduled to be on-site May 12 to give startup the unit and give training on it's operation.

The first blower shed building (Building #2) will be delivered to the Site on May 9th. Installation of the building will involve a crane lift. Austgen Electric will begin installing overhead powerlines to Building #2 on May 9th.

On-Site Area Cover

Midwest Environmental, Inc. (MEI) began placing the gravel layer for the On-Site Area Cover on May 5th. Placement of the gravel is approximately 70% complete. MES anticipates the work to be 100% complete by May 13th, including a survey of the final elevations.

MWH was informed by Tom Fromman of ACS that a concrete pad for a new nitrogen storage tank will be installed adjacent to the On-Site cover in the northeast corner of the ACS plant. This pad will be installed within the next few weeks.

Looking Ahead

Week of May 12, 2003	<ul style="list-style-type: none"> • GWTP/BWES/PGCS operation • Off-Site ISVE operation • Startup of Thermal Oxidizer Unit 2 • MEI will complete placement of gravel on the On-Site cover • Delivering and placing blower shed Building #2 • Austgen will install overhead powerlines to Building #2
Week of May 19, 2003	<ul style="list-style-type: none"> • GWTP/BWES/PGCS operation • Off-Site ISVE operation • On-Site ISVE operation
Health and Safety Items to Monitor	<p><u>Items include:</u></p> <ul style="list-style-type: none"> • Amend Health and Safety plan in regards to SVE well sampling • Potential electrical hazards associated with the Austgen work and startup of the new thermal oxidizer unit • Heavy equipment hazards for placement of gravel across the SBPA • Crane lift for installing blower shed buildings • ACS subcontractor installing concrete pad in the On-Site Area • Severe weather in the area

Next Weekly Construction Meeting - Thursday, May 15, 2003

JDP/TJV

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Weekly Oversight Summary Report No. 115
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of May 12, 2003.

BVSPC O/S Dates: May 13 and 15, 2003 (Mr. Campbell and Ms. Peters).

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	3	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Midwest Environmental, Inc.	3	ONCA SBPA Gravel Placement Contractor
Global	1	Thermal Oxidizer Unit 2 Manufacturer
Ryan Construction	2	General Contractor
Independent Environmental Services	1	ONCA SBPA ISVE System Yard Piping Contractor
Simalabs	1	GWTP Sampling Contractor

Construction Activities

Major Activities:

- Midwest Environmental, Inc. continued placing gravel over the On-Site Containment Area Still Bottoms Pond Area interim cover and repaired erosional damage to the cover.
- Global began startup of Thermal Oxidizer Unit 2 and scrubber system.
- Montgomery Watson Harza and Ryan Construction repaired the catalytic oxidizer for the groundwater treatment plant.
- Montgomery Watson Harza held the weekly construction coordination meeting on May 15, 2003.

Activities Performed:

Midwest Environmental, Inc. (MEI) continued placing gravel over the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) interim clay cover. Additional geotextile fabric scheduled to be delivered to the site was delayed. Because of the geotextile fabric delay and inclement weather, MEI only completed approximately 85% of the gravel placement and will complete its activities next week. Black & Veatch Special Projects Corp. (BVSPC) observed numerous deep erosional trails in the ONCA SBPA interim clay cover and expressed concern regarding maintaining the minimum cover thickness of 12-inches for the ONCA SBPA interim clay cover. Montgomery Watson Harza (MWH) reported that MEI will fill the erosional trails with clay and compact the fill using a roller prior to placing the geotextile. Independent Environmental Services (IES) checked the progress of

**WEEKLY CONSTRUCTION MEETING MINUTES
FOR MAY 15, 2003 MEETING
AMERICAN CHEMICAL SERVICE, NPL SITE
GRIFFITH, INDIANA**

MEETING DATE: Thursday, May 15, 2003

MEETING TIME: 10:00 AM

MEETING LOCATION: ACS Site – Site Trailer

ATTENDEES: Todd Lewis – MWH
Peter Vagt – MWH (via telephone)
Chris Daly – MWH
Kevin Adler – U.S. EPA (via telephone)
Larry Campbell – BVSPC
Lee Orosz – MWH
Jon Pohl – MWH (via telephone)

TOPICS:

Health and Safety Summary

During the crane lift to place on-site blower shed Building #2 on May 9th, Lee Orosz, MWH Site Health and Safety Officer, noted that the Imperial Cranes superintendent was not wearing a hard hat. Mr. Orosz approached the superintendent and asked that he follow health and safety regulations and wear his hard hat. The superintendent refused at which point Mr. Orosz informed him that Imperial would no longer be allowed to work at the Site.

Rudy Stein, MWH, who became lightheaded from exposure to vapors while collecting groundwater levels at soil vapor extraction (SVE) wells, was treated by a physician for a low blood oxygen concentration and was approved to return to work. Mr. Stein will receive another physical before being approved for field work.

No health and safety incidents have occurred with other activities at the Site. These activities included: the continued operation of the groundwater treatment plant (GWTP), assembly of the mechanical and electrical components of the new thermal oxidizer unit, installing power lines to the On-Site blower shed building, and installation of the gravel layer in the On-Site area which includes truck traffic and dumping of the gravel.

Groundwater Treatment Plant (GWTP) Status

The GWTP is currently operating at 20 gallons per minute (gpm) pumping from the Off-Site Barrier Wall Extraction System (BWES) extraction trenches, the On-Site BWES

extraction trenches, dual phase extraction wells in the Still Bottoms Pond Area (SBPA), and the Perimeter Groundwater Collection System (PGCS). The GWTP was shut down on May 13th when a pressure differential alarm for the catalytic oxidizer unit sounded. The system was shut down for approximately 24 hours so that the catalyst could be removed, cleaned, and replaced. During this period the thermal oxidizer unit for the Off-Site area was also shut down due to a programming error. The error was located and the unit was brought back on line.

In-Situ Vapor Extraction (ISVE) System – Off-Site Area

Thermal Oxidizer Unit 1 (Unit 1), the original unit used in operation of the Off-Site Area ISVE system, continues to operate efficiently. Unit 1 shut down automatically on May 13th due to a programming error. MWH corrected the error and brought the system back on line within approximately 24 hours. Eight ISVE wells are currently on line in the Off-Site Area System. These wells were brought online as a group on May 9th, as the last step in the system optimization testing.

On-Site Area ISVE System

Thermal Oxidizer Unit (Unit 2) for the On-Site Area is assembled and the mechanical and electrical components are complete. A technician from Global Engineering has been on-site since May 12th performing startup checks, calibrations, and slight modifications. The scrubber on Unit 2 has been run and the thermal oxidizer's pilot has been lit. Global intends to fire the main burner in the thermal oxidizer and raise the temperature with natural gas on May 19th in order to check the unit for thermal leaks. Any necessary adjustments will then be made. MWH anticipates testing Unit 2 with process air from the Off-Site ISVE wells and the vapor from the GWTP equalization tank on May 21st. Training on operation of Unit 2 will be held the afternoon of May 21st or the morning of May 23rd.

The first blower shed building (Building #2) was delivered to the Site and set in place on May 9th. Austgen Electric began running power lines to Building #2 on May 9th. MWH anticipates delivery of Building #1 by the week of May 19th or the week of May 26th. Once Building #1 is installed, Austgen will install the control panel and Motor Control Center (MCC) in the building and update the SCADA system. Midwest Environmental, Inc. (MEI) or another contractor will connect the piping between Building #1 and Building #2 and connect the pipes from the ISVE wells to the header system.

On-Site Area Cover

MEI is approximately 85 percent complete with the placement of gravel in the On-Site cover area. Additional geotextile material was needed to complete placement of the gravel. A delay in receiving the additional geotextile has postponed completion of the gravel placement. Several days of inclement weather have also added to the delay. The material is now on-site and MEI is anticipated to complete the work the week of May 19th. Larry Campbell of Black & Veatch raised a concern regarding areas of erosion on the cover and how these will be treated so that there are no areas that the clay is less than 12 inches thick. It was explained that MEI was placing additional clay, where necessary,

and rolling out all areas of erosion before the geotextile and gravel are placed in these areas.

Once the gravel is placed, the interim cover work will be complete. The final cover will be constructed in the fall of 2003 or the spring of 2004, depending on the amount of time required to get the On-Site ISVE system fully operational.

Independent Environmental Services (IES) is anticipated to be on-site the week of May 26th, once the gravel is placed, to complete the remaining concrete manways at 14 flush mounted ISVE wells.

In order to protect the On-Site SVE wells while also allowing the ACS facility personnel to utilize the access road and parking area, MWH will place the perimeter fence around the well fields on the east and west side of the cover to control access to these areas.

Looking Ahead

Week of May 19, 2003	<ul style="list-style-type: none"> • GWTP/BWES/PGCS operation • Off-Site ISVE operation • Startup of Thermal Oxidizer Unit 2 • MEI will complete placement of gravel on the On-Site cover • Austgen will install overhead powerlines to Building #2
Week of May 26, 2003	<ul style="list-style-type: none"> • GWTP/BWES/PGCS operation • Off-Site ISVE operation • On-Site ISVE operation • Delivery and installation of On-Site Blower Shed Building #1 • IES will complete installing concrete manways in the On-Site Cover Area
Health and Safety Items to Monitor	<p><u>Items include:</u></p> <ul style="list-style-type: none"> • Amending Health and Safety plan in regards to SVE well sampling and complete a Hazardous Activity Analysis prior to any well sampling • Potential electrical hazards associated with the installation of power lines to Building #2 • Heavy equipment hazards for placement of gravel across the SBPA • Crane lift for installing blower shed buildings • ACS subcontractor installing concrete pad in the On-Site Area • Connecting piping in the On-Site Blower Shed due to potential vapors

Next Weekly Construction Meeting - Thursday, May 22, 2003

JDP/PSV

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Weekly Oversight Summary Report No. 116
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of May 19, 2003.

BVSPC O/S Dates: May 22, 2003 (Mr. Campbell).

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	2	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Global	1	Thermal Oxidizer Unit 2 Manufacturer
Ryan Construction	2	General Contractor
Austgen	2	Electrical Contractor
Simalabs	1	GWTP Sampling Contractor

Construction Activities

Major Activities:

- Midwest Environmental, Inc. completed placing the gravel over the On-Site Containment Area Still Bottoms Pond Area interim clay cover.
- MWH repositioned the temporary fencing to enclose the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system well field and open the onsite access road.
- Global continued calibration and startup of Thermal Oxidizer Unit 2 and scrubber system and checked the unit for thermal leaks.
- Montgomery Watson Harza held the weekly construction coordination meeting on May 22, 2003.

Activities Performed:

Midwest Environmental, Inc. (MEI) completed placing gravel and geotextile fabric over the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) interim clay cover. Last week, Black & Veatch Special Projects Corp. (BVSPC) observed numerous deep erosional trails in the ONCA SBPA interim clay cover. Montgomery Watson Harza (MWH) reported that MEI filled the erosional trails with clay and compacted the fill using a roller prior to placing the geotextile. MWH reported that Independent Environmental Services (IES) will return to the site next week to complete pouring the concrete pads for the flushmount ONCA SBPA in-situ soil vapor extraction (ISVE) system dual phase extraction wells. MWH repositioned the temporary perimeter fencing on the ONCA SBPA in order for ACS personnel to access its parking areas and road. The temporary perimeter fence now encompasses only the ISVE well field instead of the entire ONCA SBPA interim cover. MWH reported that Tom Froman of ACS approved the repositioned fenceline. MWH also reported that

**FOR MAY 22, 2003 MEETING
AMERICAN CHEMICAL SERVICE, NPL SITE
GRIFFITH, INDIANA**

MEETING DATE: Thursday, May 22, 2003

MEETING TIME: 10:00 AM

MEETING LOCATION: ACS Site – Site Trailer

ATTENDEES: Todd Lewis – MWH (via telephone)
Peter Vagt – MWH (via telephone)
Rob Adams – MWH (via telephone)
Kevin Adler – U.S. EPA (via telephone)
Larry Campbell – BVSPC
Lee Orosz – MWH
Tom Tinics – MWH
Jon Pohl – MWH (via telephone)

TOPICS:

Health and Safety Summary

No health and safety incidents have occurred at the Site since the last meeting. Activities at the site have included the continued operation of the groundwater treatment plant (GWTP), a technician from Global Engineering working on the start up of the new thermal oxidizer unit, and installation of the gravel layer in the On-Site area.

Rudy Stein, MWH, who became lightheaded from exposure to vapors while collecting groundwater levels at soil vapor extraction (SVE) wells has received the appropriate paperwork from MWH's corporate health and safety department for his final physical before he can be reinstated to field work. Mr. Stein is in the process of scheduling this physical.

Groundwater Treatment Plant (GWTP) Status

The GWTP is currently operating at 20 gallons per minute (gpm) pumping from the Off-Site Barrier Wall Extraction System (BWES) extraction trenches, the On-Site BWES extraction trenches, dual phase extraction wells in the Still Bottoms Pond Area (SBPA), and the Perimeter Groundwater Collection System (PGCS). There have been no problems with the operation of the GWTP since the last meeting.

In-Situ Vapor Extraction (ISVE) System – Off-Site Area

Thermal Oxidizer Unit 1 (Therm Ox 1), the original unit used in operation of the Off-Site Area ISVE system continued to treat vapors. The unit continued to operate efficiently until May 21st. For part of the startup for the new thermal oxidizer unit (Therm Ox 2),

the unit was cycled through various thermal conditions to determine if the alarms and controls are working properly. As certain alarms on the new unit were activated, it was noted that Therm Ox 1 would shut down. After this occurred a few times, it was thought that an error had been introduced into the SCADA system that caused Therm Ox 1 to shut down when certain alarms in the new thermal oxidizer unit were activated. Therm Ox 1 was then shut down so that MWH and Austgen Electric could correct the problem. It is expected that the problem will be resolved by the end of the day on May 22nd. Eight ISVE wells are currently on line. These wells were brought online on May 9th, as the last step in the system optimization testing.

On-Site Area ISVE System

Thermal Oxidizer Unit 2 (Therm Ox 2) for the On-Site Area is assembled and the mechanical and electrical components are complete. A technician from Global Engineering has been on-site since May 12th to perform startup checks, calibrations, and small modifications which will be completed by May 23rd. On May 20th Global fired the main burner in the thermal oxidizer and raised the temperature in order to check the unit for thermal leaks using thermal photography. No leaks were detected. On May 21st, MWH tested Therm Ox 2 using process air from the Off-Site SVE wells and vapor from the GWTP equalization tank. However, the process air was only run to the system for five minutes because the control system needed interlock updates. The error in the programming is expected to be corrected by May 23rd, at which time, Therm Ox 2 will be tested with process air again. Training on operation of Unit 2 will be held on May 27th. Influent modifications to Therm Ox 2 will be made in the next few weeks.

Austgen Electric will be installing a control panel in the On-Site Blower Shed Building 2 on May 22nd and 23rd. Building 1 will be delivered to the site and set on the pad on May 28th. Once Building 1 is installed, Austgen will install the electrical connections between the two buildings, connect power from the GWTP to Building 1, and update the SCADA system. MWH will then connect the piping between Building 1 and Building 2 and connect the pipes from the ISVE wells to the header system.

On-Site Area Cover

Midwest Environmental, Inc. (MEI) completed the placement of gravel in the On-Site cover area on May 21st. Areas of the cover where erosion of the clay occurred were fixed using a bulldozer and a roller and adding additional clay when necessary. Once these areas were fixed, geotextile and gravel were placed and the gravel graded and compacted. This completes the final portion of the cover work before asphalt paving is done.

During the week of May 26th, the remaining concrete manways at 14 flush mounted ISVE wells will be completed.

With completion of the gravel cover and the construction of the concrete manways, the center roadway and the parking area will be ready to support ACS traffic. Therefore, the portable perimeter fence has been repositioned to provide ACS access to the road and parking area while protecting the other parts of the ISVE well field. Tom Froman of the

ACS Facility inspected the placement of the fencing and indicated he was satisfied with it's location.

Mr. Froman also inquired to whether or not the clay berm on the west side of the cover area can be taken down. MWH will determine if this berm is still necessary or whether it can be removed.

Off-Site Area Cover

Larry Campbell of Black & Veatch said that he noticed some erosion areas in the Off-Site cover. Todd Lewis, MWH, and Rob Adams, MWH, indicated that they would be at the site the week of May 26th and would inspect the erosion areas in order to determine a plan for repairing these damaged areas. This plan will be discussed with the Agencies prior to implementation. Mr. Campbell also asked about the future status of the tree stumps that remain on the non-engineered portion of the cover. Currently there are no plans to dispose of these stumps other than to let them degrade where they are. Peter Vagt, MWH, and Kevin Adler, U.S. EPA, indicated they would discuss the options for the stumps and will determine their final disposition.

Design Refinements

The 8 inch vapor conveyance piping that connects the manifold to Thermal Oxidizer Unit 2 will be replaced with 12 inch conveyance pipe to allow for the air flow rate. Ryan Construction will replace this piping once the unit is online and running efficiently. It is anticipated this work will be done within the next two weeks.

Looking Ahead

Week of May 26, 2003	<ul style="list-style-type: none"> • GWTP/BWES/PGCS operation • Off-Site and On-Site ISVE operation • Startup of Thermal Oxidizer Unit 2 and operational training including operating the unit continuously on process air • Setting On-Site Blower Shed Building 1 • Install electrical and control connections in On-Site Blower Shed Buildings 1 and 2 • Complete pouring the remaining concrete manways
Week of June 2, 2003	<ul style="list-style-type: none"> • GWTP/BWES/PGCS operation • Off-Site ISVE operation • On-Site ISVE operation • Replace the vapor conveyance piping from the manifold to Thermal Oxidizer Unit 2 • Connecting electrical, control, and vapor lines between On-Site Blower Shed Buildings 1 and 2
Health and Safety Items to Monitor	<p><u>Items include:</u></p> <ul style="list-style-type: none"> • MWH will have a H&S meeting with pertinent personnel to identify root causes of recent incidents and to revise H&S procedures • Potential electrical hazards associated with the installation of power lines to Buildings 1 and 2 • Crane lift for installing blower shed building • ACS subcontractor installing concrete pad in the On-Site Area • Connecting piping in the On-Site Blower Shed due to potential vapors

Next Weekly Construction Meeting - Thursday, May 28, 2003

JDP/TAL/PSV

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Weekly Oversight Summary Report No. 117
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of May 26, 2003.

BVSPC O/S Dates: May 28 and 29, 2003 (Ms. Peters).

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	7	Respondent's General Contractor
U.S. Environmental Protection Agency	1	Federal Regulatory Agency
Indiana Department of Environmental Management	1	State Regulatory Agency
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Ryan Construction	2	General Contractor
Austgen	2	Electrical Contractor
Central Crane	1	Crane Contractor
Fliteway	1	Blower Shed Manufacturer
Simalabs	1	GWTP Sampling Contractor

Construction Activities

Major Activities:

- Fliteway delivered and Montgomery Watson Harza and Central Crane placed the On-Site Containment Area Still Bottoms Pond Area in-situ soil vapor extraction system blower shed building #1.
- Montgomery Watson Harza operated Thermal Oxidizer Unit 2, processing vapors from the Off-Site Containment Area in-situ soil vapor extraction system.
- Ryan Construction replaced the 8-inch-diameter vapor influent piping to Thermal Oxidizer Unit 2 with a 12-inch-diameter pipe.
- Montgomery Watson Harza held the weekly construction coordination meeting on May 29, 2003.

Activities Performed:

Fliteway delivered the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) in-situ soil vapor extraction (ISVE) system blower shed building #1 on May 28, 2003. Central Crane lifted the shed from the trailer and positioned it above the concrete slab foundation. When Montgomery Watson Harza (MWH) and Fliteway began placing the shed over the exiting piping, they observed

that the openings in the floor did not line up with the piping in the concrete slab. MWH temporarily placed the blower shed on railroad ties on the concrete pad in order to determine what would be the appropriate action to take for lining up the blower shed with the piping. Fliteway returned to the site on May 29, 2003, and discussed mitigative measures for the blower shed. MWH reported that its preliminary plan for the blower shed is to align the manifold system in the blower shed with the yard piping stub-ups and to extend the west wall of the building westward in order for the process pipes to be enclosed in the blower shed. MWH reported that it will continue to evaluate its options and that it would likely place the shed on the concrete slab foundation during the week of June 2, 2003, and begin modifications to the shed.

MWH reported that Thermal Oxidizer Unit 2 ran successfully over the weekend, processing vapors from the Off-Site Containment Area (OFCA) ISVE system. MWH shut down Thermal Oxidizer Unit 2 on May 29, 2003, in order for Ryan Construction to replace the 8-inch-diameter influent vapor piping with a 12-inch-diameter pipe.

MWH reported that it shut down Thermal Oxidizer Unit 1 on May 27, 2003, in order for Ryan Construction to perform maintenance activities and to reconfigure the scrubber piping. MWH reported that it transferred the pH probe to a calibration solution with a pH less than 7, the set point for caustic addition to the scrubber. Because the control system for Thermal Oxidizer Unit 1 and the scrubber was still in place and the pH probe was registering a pH less than the set point, the system continued to add caustic to the scrubber sump. MWH discovered the high pH in the scrubber sump and turned off the caustic pump. MWH flushed the scrubber with water in order to lower the pH. MWH obtained a neutral pH in the scrubber sump on May 29, 2003.

MWH reported that it encountered difficulties starting up Thermal Oxidizer Unit 2 after Ryan Construction completed installing the 12-inch-diameter pipe. MWH decided to bring Thermal Oxidizer Unit 1 up to temperature and expected to resume processing vapors next week.

MWH reported that Austgen will wire and install the motor control center (MCC) and control panels in blower shed building #1, once MWH has remedied the configuration of shed. MWH also reported that it will begin connecting the ONCA SBPA ISVE system yard piping to the manifold once blower shed building #1 is placed.

MWH walked the OFCA engineered cover on May 29, 2003, and noted the areas where additional maintenance is needed. MWH reported that it will submit a formal plan to the Agencies to address the maintenance activities.

MWH reported that the groundwater treatment plant (GWTP) operated at 20 gpm, pumping from the barrier wall extraction system, perimeter groundwater collection system and a portion of the ONCA SBPA ISVE system dual phase extraction wells. MWH reported that the GWTP shut down during the week because of the high pH of the scrubber brine from Thermal Oxidizer Unit 1. MWH reported that the high pH worked its way through the GWTP and that it did not anticipate any future problems. MWH also reported that it will change out the carbon in the carbon units on June 16, 2003, in order to clear a clog in the piping. MWH reported that this will involve confined space work.

MWH held the weekly construction coordination meeting on May 29, 2003.

Topics of Concern:

- Rudy Stein of MWH became lightheaded after being exposed to vapors during ISVE system well water level measurements.

Concern Resolution:

- Mr. Stein was cleared for field work. MWH is planning an internal health and safety meeting and will amend its site Health and Safety Plan to include water level measurements from ISVE system wells.

Upcoming Activities:

- IES to complete pouring the concrete pads for the ONCA SBPA ISVE system flushmount wells.
- MWH and Fliteway to modify ONCA SBPA ISVE system blower shed building #1.
- Austgen to continue installation of the control panel and MCC for the ONCA SBPA ISVE system.
- MWH to operate the OFCA ISVE system, treating vapors in Thermal Oxidizer Unit 2.
- MWH to connect the ONCA SBPA ISVE well field to the manifold in blower shed building #1.
- MWH to perform maintenance activities to address erosional damage to the OFCA engineered cover.

Signature: Leigh Peters

Date: June 2, 2003

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**WEEKLY CONSTRUCTION MEETING MINUTES
FOR MAY 29, 2003 MEETING
AMERICAN CHEMICAL SERVICE, NPL SITE
GRIFFITH, INDIANA**

MEETING DATE: Thursday, May 29, 2003

MEETING TIME: 2:00 PM

MEETING LOCATION: ACS Site – Site Trailer

ATTENDEES: Tom Tinics – MWH
Rob Adams – MWH
Prabhakar Kasarabada – IDEM
Leigh Peters – BVSPC
Travis Klingforth – MWH
Lee Orosz – MWH
Todd Lewis – MWH
Peter Vagt – MWH
Kevin Adler – U.S. EPA
Chris Daly – MWH

TOPICS:

Health and Safety Summary

No health and safety incidents have occurred at the Site since the last meeting on May 22, 2003. Activities at the site this week have included the continued operation of the groundwater treatment plant (GWTP), a technician from Global Engineering working on the start up of the new thermal oxidizer unit, and construction activities associated with the Still Bottoms Pond Area (SBPA) In-situ Soil Vapor Extraction (ISVE) system.

MWH has been in the process of flushing the Durr scrubber unit of excess caustic that had accumulated in the scrubber sump. The accumulation was caused by a pump that did not shut down when the system was shut down. The affected area around the scrubber has been marked with barricades.

Rudy Stein, MWH, who became lightheaded from exposure to vapors while collecting groundwater levels at soil vapor extraction wells has completed his physical and has been cleared to return to field work. MWH is planning an internal health and safety meeting on June 12 to further discuss this matter.

Groundwater Treatment Plant (GWTP) Status

The GWTP was down on May 27 and 28 due to elevated pH levels caused by the flushing of caustic from the Durr scrubber caustic flushing. Prior to these shutdowns, the GWTP was operating at 20 gallons per minute. Influent water was collected from the

Off-Site Barrier Wall Extraction System (BWES) extraction trenches, the On-Site BWES extraction trenches, dual phase extraction wells in the SBPA, and the Perimeter Groundwater Collection System (PGCS).

The startup of the Global Thermal Oxidizer/Scrubber system (Therm Ox 2) substantially completed. The unit is scheduled for continuous operation to treat more of the influent from the dual phase extraction wells in the SBPA on line in addition to the vapors from the Off-Site ISVE system. This will increase the influent groundwater flowrate to the GWTP.

MWH will evaluate the need for heating the activated sludge plant during the winter and will determine the source of the heat for the heat exchanger currently installed in Tank T-2.

Off-Site Area ISVE System

Thermal Oxidizer Unit 1 (Therm Ox 1), the original unit used in operation of the Off-Site Area ISVE system was shutdown to allow construction activities to proceed for Therm Ox 2 (see below). MWH is currently evaluating system maintenance needs for Therm Ox 1. Vapors from the Off-Site ISVE system are now directed to Therm Ox 2 for treatment.

MWH has completed its system evaluation of the Off-Site ISVE field and is currently preparing a technical memorandum to document the results and propose the final configuration for the Off-site ISVE system.

On-Site Area ISVE System

The startup of Therm Ox 2 is substantially complete. A technician from Global Technologies was on site to complete startup. The technician also provided system operation training for MWH personnel on May 26. On May 28, Therm Ox 2 was shutdown to allow Ryan Construction to install a 12-inch pipe on the influent side of Therm Ox 2 to allow greater air flow to the air treatment unit. This 12-inch PVC pipe replaces the eight inch diameter HDPE pipe originally installed for the system. Global's technician will return to the site within the next week to complete system startup with the new configuration.

Austgen Electric has installed the control panel in the On-Site Blower Shed Building 2.

Building 1 was delivered on May 28. A minor mis-alignment was discovered when Building 1 was lowered over the concrete pad. The shed was placed on temporary supports until the options to correct the alignment are evaluated. After the adjustments have been made, Austgen Electric and Ryan Construction will complete the electrical and mechanical connections. Fliteway is scheduled to be on site next week to prepare to accommodate the piping.

Independent Environmental Services (IES) will be on site next week to complete concrete forms around the remainder of the flush-mount wells in the On-Site Area. IES anticipates pouring concrete on Wednesday, June 4 and Friday, June 6.

Off-Site Area Cover

Environmental Contractors of Illinois will be on site on May 30 to re-survey the Off-Site Cover. Errors in the first survey were detected by MWH when the construction completion documentation was submitted.

Looking Ahead

Week of June 2, 2003	<ul style="list-style-type: none"> • GWTP/BWES/PGCS operation • Off-Site ISVE operation • Setting/retrofitting On-Site Blower Shed Building 1 • Install electrical and control connections in On-Site Blower Shed Buildings 1 and 2 • Complete pouring the remaining concrete manways
Week of June 9, 2003	<ul style="list-style-type: none"> • GWTP/BWES/PGCS operation • Off-Site ISVE operation • Connecting electrical, control, and vapor lines between On-Site Blower Shed Buildings 1 and 2
Health and Safety Items to Monitor	<p><u>Items include:</u></p> <ul style="list-style-type: none"> • MWH will have a H&S meeting on June 12 with pertinent personnel to identify root causes of recent incidents and to revise H&S procedures • Crane lift for installing blower shed building • Connecting piping in the On-Site Blower Shed due to potential vapors. Engineering controls (ventilation) will be in place and monitoring (via PID) will be conducted.

Next Weekly Construction Meeting - Thursday, June 5, 2003

CAD/PJV/RAA

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(52)

5-1-03

MWH is modifying SUE piping
to GWTTP so gases from OFCA,
ONCA & Plant off Gas system
can be ~~the~~ processed at either
1 Cator, Thermo 1 or Thermo 2.

Look Ahead

Ryan to complete Thermo 2 mechanics
Austgen " " " " Electrical
IES to place conc. pads
MEI to ~~prepare~~ place gravel ONCA
Austgen Equip - OFCA cover maint
Alabal her in ring & starting
of Thermo 2

1030 Meeting Over

1040 Inspect consist of Thermo 2

1045 Roll 39 Photo 25 - looking NE
at Regan personnel installing piping
outside GWTTP for Thermo 2

1130 Leave site for Lunch

1230 Return

Make final review of GWTTP

1330 A LTB Site

~~Jim Campbell~~

(53)

5-6-03

Jim Campbell

0900 Arrive Pensite - weather clear
sunny, 60°F

Personnel Pensite

Lee Drasz	MWH
Bill Sheibart	GE Marshall
Ken Field	MEI
Don Bentley	"
Tom Evers	Ryan
Jerry Clark	"
Dwayne Austgen	Austgen Elec
Larry Acker	"
Jon Keagy	"
Tim Kirkland	Austgen Fleet
Terry Risk	Ryan
Mike Larson	Austgen
Larry Campbell	BUSRC

0925 Go to ONCA

Roll 39 Photo 26 Looking SSW at
truck dumping gravel W of blower stack Pad

0935 Roll 39 Photo 27 Looking NW at
MEI laying geo fabric around ISUE
Well SVE 58

0945 Roll 40 Photo 12 Looking NW at
MEI placing geo fabric

Jim Campbell

(54)

5-6-03

J M Campbell

1005 Roll 40 Photo 2² Looking S at
D5 Dozer Spreading gravel
near SVE well 58

1025 Roll 40 Photo 3⁴ Looking NW
at MEI digging trench through
berm @ Wedge of ONCA to
drain ponded water

1035 Roll 40 Photo 4⁵ Looking E at
6 inch deep erosion gully in clay
cover at W edge of ONCA

1042 Roll 40 Photo 5⁶ Looking N
showing extra thickness of
gravel over vapor piping near
SVE well 71 to protect piping
from gravel delivery trucks

1050 Roll 40 Photo 6⁷ Looking SSE showing
concrete pad at flush-mount ~~to~~ wells
in roadway area

1100 Roll 40 Photo 7⁸ Looking SE at
OFCA retention pond from RR tracks
after recent heavy rains

1110 Roll 40 Photo 8⁹ Looking E at
ONCA showing fabric + gravel placement
Not erosion gullies (Photo 4) and drainage
trench (Photo 3). Taken from top
of bio tank

J M Campbell

(55)

5-6-03

J M Campbell

1115 Roll 40 Photo 9¹⁰ Looking SE at
OFCA showing retention basin
and grass-covered cover. Taken
from top bio tank

1118 Roll 40 Photo 10¹¹ Looking W at
constructed pond in PCB excavated
area of marsh land

1130 Roll 40 Photo 11¹² Looking NW at
ISVE air inlet in GWTP showing
cross over piping to allow ONCA
or OFCA ISVE vapors to be treated
in either thermox unit

1200 Left Site for Day

[Handwritten signature: J M Campbell]

(56)

5/8/03

J. Peters

0740

Arrive onsite, overcast, fog, NW wind, 50°F

Personnel Present

Bill Shelhart

MEI

Tony Ferrini

MEI

* Todd Lewis

MWH

Dwaine Austgen

Austgen

* Leigh Peters

BVSPE

0755

Roll 40 photo ¹³ facing SW showing blower and exhaust stack installed on platform for new scrubber unit.

0805

Spoke with K. Field of MEI regarding progress on ONCA SBPA. He reported things going well - placing additional stone over pipework blower shed and central portions with pipe so as to not damage pipe when driving trucks over. MEI placed 12-16 inches of gravel in those areas. MEI placing 4-6 inches of CA-6 gravel on western area where there is no piping. MWH to bring in surveyor to finalize elevations and placement. MEI using low pressure dozer. MEI also reported that it believes that there will be some issues with storm water runoff from cap near ACS buildings.

J. Peters

(57)

5/8/03

J. Peters

0820 Went to ONCA SBPA to observe gravel placement and progress.

0825 Roll 40 photo ¹⁴ facing W of gravel placed w of blower shed - main road with gravel turning out.0830 Roll 40 photo ¹⁵ facing W of ponding water at ACS building - elevation of gravel to be placed visible.0840 Roll 40 photo ¹⁶ facing NE of MEI spreading gravel over yard piping near SVE ⁷³

0915 Spoke with MEI operator - MWH did not have enough geotextile → expect more by Monday to finish placing. MEI expected to have eastern portion of cover done this week.

1000 Weekly Construction Meeting

Attendees - * as previous plus:

Peter Vagt MWH Steve Field MEI

via phone:

R. Adler EPA ~~BA~~ ^{JP}

J. Pohl MWH C. Daly MWH

T. Klingforth MWH

HHS: R. Stein measured ONCA SBPA

ISVE wells - observed strong odor and had dizziness/headache. MWH sent to hospital.

J. Peters

(58)

5/8/03

Jah SP

R. Stein had lowered O_2 level in blood - home today + will check with regular doctor.

MWH investigating mitigation measures including venting and respirators.

GNTP: op at 20gpm, to increase w/ given rains.

OFCA ISVE: operating with B wells - to switch tomorrow and move into stage 4 of operations. Then to prepare report of findings. MWH did not receive VOC results for March + April effluent compliance sample. Collecting May sample today. MWH to shut down system once new Thermax on line. MWH also to evaluate cold gas removal efficiency of unit.

ONCA ISVE: Arrived to startup 5/12/03.

Hope to begin with process gas on 5/15/03. Blower shed #2 to be delivered tomorrow. Arriving to string utility lines and begin electrical installations.

ONCA cap: gravel placement to be complete by 5/12/03 with some additional grading. MEI waiting on additional geofabric.

Look Ahead: OFCA ISVE + GNTP op Thermax 2 startup, complete gravel and begin on ONCA SBPA ISVE shed.

Jah SP

(59)

5/8/03

Jah SP

Look Ahead H + S: track traffic, energizing panels for 1st time. Modification to HASP to provide for protection when collecting water levels from ISVE walls.

1035 Mtg Conclude - Next Meeting 5/15/03 @ 10AM.
100-1115 Spoke with L. Campbell on site activities.

Check on activities tomorrow, - erosion - fills in ONCA.

1130 Spoke with Steve Field of MEI he reported that MEI regraded top 1-inch of clay on western portion of ONCA SBPA in order to eliminate erosional damage. MEI pulled back geofabric clay to clay + to be repaired.

1230 Took 40 Photo of facing N of regraded Western cap.

1235 Spoke with P. Vogt - he is unsure if crane lift to occur tomorrow with weather is adverse.

1250 Left site for day

Jah SP
5/8/03

(60)

5-9-63 Jim Campbell
1245 Arrive on site. Partly
cloudy, light breeze 78°F

Personnel on site

Bill Eckhart	CIE Marshall
Tony Ferrini	MEI
Lee Orsog	MWH
Steve Ridd	MEI
Dwaine Austgen	Austgen Elect
Mike Larsen	Austgen Elec
Chris Daly	MWH
Lonny Auer	Austgen
Larry Campbell	BUSPC

1300 Chris Daly reported that
ONCA Thermox Unit #2
was completely installed
and ready for start up on Monday

1305 Roll 40 Photo 17¹⁸ Looking E at
Austgen personnel installing
conductor on poles to ONCA
blower shed.

1355 Roll 40 Photo 18¹⁹ Looking NW
at ONCA 15' E Blower Shed

Jim Campbell

(61)

Jim Campbell

on delivery truck in lift crane
in background

1357 Roll 40 Photo 19²⁰ Looking NW
at MWH & Imperial Crane mast
operator planning the lift. Note
Austgen personnel in background
stringing elact. cable

1400 Roll 40 Photo 20²¹ Looking NW
at Blower shed being moved
over foundation

1405 Roll 40 Photo 21²² Looking SW
at blower shed lifted off truck

1405 Roll 40 Photo 22²³ Looking W
at blower shed being lined up over
piping

1407 Roll 40 Photo 23²⁴ Looking E
at blower shed being lined up

1415 Roll 40 Photo 24²⁵ Looking W
into blower shed Note Lee Orsog
on floor lining up sparge lines
with openings in floor

1420 Roll 40 Photo 25²⁶ Looking N inside
blower shed showing tight fit of
air sparge and DPE water lines through
floor of shed

Jim Campbell

(62)
5-9-03

1435 Roll 40 Photo 26²⁷ Looking SE
at blower shed settings on pad
1500 left site for Day

Completed

5/13/03

Jeff Patis.

(63)

0740 Arrive onsite, Sunny, Clear, NW wind, 50-55°F
Personnel onsite

Lee Orsz MWH

Bill Shelhor MEI (GE Marshall)

Bob Ica ~~MEI~~ Global

Mike Patch IES

Jerry Clark Ryan

Tom Evers Ryan

Steve Field MEI

Ron Gentry MEI

Activities Today

- ① MEI placing gravel on ONCA SPRA
- ② Global startup of ONCA thermox/scrubber and inspection of unit
- ③ MWH to repair catex unit - high pressure alarm yesterday.

0745 Spoke with Global representative. He reported installation of unit looks good - minor items, but will be starting VFO today. Global also reported that it expects to be onsite for 10 days total - hope to bring process gas by end of week.

0750 Spoke with L. Orsz - he reported IES onsite to check on status. L. Orsz also reported that he was not sure if there is

(64)

5/13/03

J.B. S. P. M.

erosional damage to ONCA cover. He reported that he didn't know and didn't have time to look so far.

0800 Went to ONCA to observe progress - MEI still waiting for geotextile fabric, gravel being delivered and piled. MEI working on eastern portion.

0830 Roll 41 Photo 1 facing S of erosion in northern portion of cap, E of ACS break room building.

0832 Roll 42 Photo 2 facing N of fresh erosion trails in S portion of ONCA SDPA cap near railroad tracks.

0835 Roll 42 Photo 3 facing NE of fresh erosion ripples on western portion of ONCA cap that formed after heavy weekend rains. Area was previously reworked last week.

0910 L. Orsz came to ONCA - MEI to spread excess clay on W portion of cap and will fill the erosion. When asked about erosion on S side of cap L. Orsz reported that they will just place gravel directly over cap - I asked about minimum of 12 inch thickness of clay, L. Orsz reported that he believed there was

J.B. S. P. M.

(65)

5/13/03

J.B. S. P. M.

more than 12 inches over cap and that requirement is likely met, erosion trails to not be filled in. MEI voiced concern over filling S area with clay because material is wet and equipment likely to slip.

0920 Returned to GWP. L. Orsz reported he took apart catx but found bottle gasket. Ryan onsite working on unit.

0925 Roll 41 Photo 4 facing W of Catalyst and White material from caton unit on the inlet side of catalyst.

0927 Roll 41 Photo 5 facing E of effluent on outflow side of catalyst.

0935 Went to OFCA and walked area.

0940 Roll 41 Photo 6 facing W from EW 20C manhole showing ponding water on OFCA cover - same location as last year.

0942 Roll 41 Photo 7 facing W showing exposed conduit near retention pond. Conduit runs fiber optic cable to OFCA blower shed and was installed last year.

0950 Roll 41 Photo 8 facing N of erosion trail in S portion of ONCA cap.

0953-1003 Spoke with L. Campbell regarding activities and erosion.

J.B. S. P. M.

166 5/13/03 DGS SPAN

1005 returned to GV TP. observed Ryan had

blown out catalyist and reassembling unit.

1035 spoke with L. Cross - regarding erosion

trails that are deep ~ 6-inch. L. Cross

reported that he will have MEL make

shut areas get checked out, run bleed over and

fill in vats, then roll over with roller

for compaction. L. Cross said that he

didn't realize that there were sand

deep erosion trails but that he will

talk with Steve Jr. II to make sure that

they are addressed

1045 Returned to OACA + observed MEL grading.

1115 Went to GVTP, Global rep continued to

test out instrumentation.

1120 Left site for day.

~~5/13/03~~

5-15-03 Jm Campbell

0855 Arrive on site

overcast, local 53°F

Personnel on site

L. Cross

Tony Ferrini

B. J. Silvestri

Brian Lyon

Tom Evers

Steve Clark

Todd Lewis

Chris Bailey

Mike Chomacyn

Bryan Campbell

BVSRC

0915 observed Ryan working on Thruway 2

Global Inspector checking out unit

0925 Went to top of b so tank to perform drain

Roll 41 Patch of Leaking E at drain

Gross in p.b.s, new rolls of geotextile

on site waiting for placement

0936 Roll 41 Patch to Leaking NW deep b.s.c

Tank showing vapor emitted from (E-L) catex

and Thruway 1 units. No functioning Thruway 2

Exhaust to top left.

Jm Campbell

167

(68)


5-15-03

JM Campbell

0932 Roll 41 Photo 11 Looking SE
Showing Global Tech programming
Thermax 2

0943 Roll 41 Photo 12 Looking E
at W end of ONCA clay cover
Showing attempts to place/grade
clay to fill erosion rivulets

0944 Roll 41 Photo 13 Looking E
at W end ONCA cover at
edge of geofabric showing
geofabric down in erosion gully
& filled w/ gravel
Too thin cover
Clay
geofabric
gravel



0948 Roll 41 Photo 14 Looking N
Showing soft clay torn geofabric
with soft clay protruding up thru
geofabric (20' E of Photo 12)

0953 Roll 41 Photo 15 Looking E
from Blower shed showing graded
& compacted gravel

JM Campbell

JM Campbell

(69)

1000 Consta Mtg

Attendees

Tedd Lewis, Chris Daly, Lee Cross

JM Campbell

Vic Pham, Pete Vest, John Pohl
& Kevin Adler

HAS Crane lift last Friday re

ONCA 15VE bldg 2. Imperial Crane
Superintendent would not work hard but
near end of activity - Lee instructed him
to do so - he refused. Lee informed
him he couldn't work inside again.
Ryan used harnesses during work on
Thermax 2.

Buddy Stern (included vapor test work
during Water Level measurements) went
to hospital & had depressed O₂ levels
in blood. Doctor approved his return to
work last Friday - following up with
Doctor

GWTP Recovery at 20:50pm. System
down last Thurs because of pressure
differential in Catex unit. Opened Catex
unit, removed & replaced catalyst &
Restarted Catex & GWTP on Wednesday.

JM Campbell

(70)

5-15-03

JM Campbell

OFCA ISVE Thermox 1 went down on Tuesday. Austgen programme had created a programming error that caused shutdown. Now fixed & operating ok.

ONCA ISVE Bldg 2 arrived and was set on pad last Fri afternoon. Austgen hung power cables on poles but did not connect to source or bldg 2. Thermox 2 installed. Global Tech onsite since Monday checking out unit. Pilot light is lit.

Expect to fire main burner of Thermox 2 next Monday, bring up to temperature, introduce OFCA ISVE vapors & GWTP equalization tank gases on Wednesday.

Expect to conduct training of MWH personnel on Wed PM or Fri AM.

ONCA ISVE bldg 1 expected to arrive during period 23-28 May. Then Austgen will install electrical control panel, Motor control center and SCADA in bldg.

Ryan to install/join piping

JM Campbell

(71)

5-15-03

JM Campbell

ONCA Cover - Gravel placement \approx 85% complete - needed more geo-fabric to complete activity. Still have work to do on slopes. ~~95%~~ 95% Gravel is onsite in piles waiting on placement of geo fabric.

Thereafter IES with British installing concrete pad around ISVE DPE wells

ONCA Fencing (future) - After

ONCA cap completed, MWH will probably provide restriction boundary around well field to prevent ACS & others access thereto.

ONCA Cover - LMC expressed concern about erosion gullies in ONCA clay slopes. These need to be backfilled and compacted prior to placement of geo fabric and gravel. MWH agreed to have this done.

Look Ahead

Thermox 2 Start up next week

ONCA gravel - complete w/ 1-2 wks

ISVE DPE well conc. pads - w/ 2 wks

Bldg 1 - arrive w/ 2 wks

Power lines to bldg 1 - next week

JM Campbell

(72)

5-15-03

Jim Campbell

Will measure water levels
next week.

Look Ahead H&S

- Need Job Hazard Analysis prepared before measure water levels in creek to protect personnel from vapors
- Crane lift of ONCA 150E Bldg 1
- Check to be sure Austgen is not making live electrical connections
- Be sure to lock out new MCC when installed
- Note that Thorway 2 will be operating w/ new procedures, sounds, etc.
- Connections to ONCA 150E vapor piping may require level C or B PPE because of vapors in pipes

1035 Mtg over

Next Mtg Thur 5-22-03 @ 10AM

1045 LMC asked MWH what work be done about cut trees in OFCA. Todd mentioned that is not part of remedy, so possibly could remain where they are. Also mentioned possible chipping & spread chips

Jim Campbell

5-15-03

Jim Campbell

(73)

on site. Might have to test wood for Guenter contaminants that may have been uptaken by trees when alive. Also mentioned possible burying chips under OFCA cap.

1130 Left for Lunch

1245 Return to site - visited OFCA w/ MWH personnel - specifically inspected West edge of OFCA cover adjacent to riprap ditch along W edge of OFCA

1300 Roll 41, Photo #5¹⁶ Looking E at erosion gully in W edge of cover near EW 13A

1310 Roll 41, Photo #6¹⁷ Looking E at erosion gully in W edge of cover near ~~Atto~~ the Pier P116.

1320 Roll 41, Photo #7¹⁸ Looking SE at OFCA vegetative cover and results of recent mowing. Taller grass on left was cut 1 wk ago.

1340 Return to GWTP
talked to Todd about plans for the erosion problems

Jim Campbell

(74) 5-15-03 Jm Campbell

Todd suggested filling erosion gullies. Possibly placing erosion control mat to encourage faster vegetation growth, and possibly additional stone rip rap up the slope to minimize erosion.

Ed Adams will be onsite next week + will review the problem.

1400 Reviewed April Monthly Status Report

1530 Observed Global continue Startup trouble shooting Opns

1600 Left Site

~~Jm Campbell~~

5-22-03 Jm Campbell

(75)

0900 Arrive onsite - clear, calm 64°F

Personnel onsite

Lee Orsby	MWH
Bob Lion	Global
Ben Taylor	Austgen
Dwayne Austgen	"
Terry Frisb	Ryan
Jerry Clark	"
Larry Campbell	BLSP
Tom Tenix	MWH
Milo Chometh	Semicon

0915 Observed Global Tech. continuing check of thermox 2

0920 Roll 41, Photo #8¹⁹ Looking E at ONCA SDPA gravel cover completed. Fence moved inward to just enclose well field

0925 Roll 41 Photo #9²⁰ Looking NW showing vapor from Thermox 2 (L) and Catox (R).

0935 Roll 41 Photo #21²¹ Looking W into ONCA SVE Shed #2 - w/ MCC unit

Jm Campbell

(76)

5-22-83 Jim Campbell

0940 Bell 41 Photo 21 Looking W
at E end of SRP at gravel
cover - showing DPE SVE well 50
not completely buckled -
awaiting placement of
concrete cap

0946 Bell 41 Photo 22 Looking N
at existing catch basin grate

on S edge of gravel cover
0948 Bell 41 Photo 23 Looking NE
at W edge of gravel cover

0949 Bell 41 Photo 24 Looking E
at gravel cover on W side of
SRP

1000 Construction Mtg.

Attendees:
Lee Dwyer, Tom Lewis - WWT
L Campbell, Bruce
O'Brien, Pete Vast, John Pohl
Todd Lewis, Pat Adams, Muth
Kevin Allen, EPA

Had no problems last week - but
little construction work
likely is scheduled to start soon

Jim Campbell

(77)

5-22-83 Jim Campbell

physical before returning to work
GUTP operating @ 20 gpm - also
problems

Thermax 1 operator well last week
until Wednesday. Looking computer
program for Thermax 2. Worst problem
in Thermax 1 - digestion looking into
programming problem in SCADA.

Thermax 1 pulling vapors from same
group of fuel cells - running @ 1500°F
still needs attention of Michael for
to operate

Thermax 2. Global Tech doing startup
troubleshooting. Launch injection &
pH tracking units are debugged.

Running in hot idle. Fuel some
OFA vapors yesterday for 5 minutes
but caused shutdown of Thermax 1
Thermax 2. Researcher from Tennessee
to next Tuesday

ONCA SBRA Cases. Met backfilled
gravel erosion areas in N15 & N

Slips. Compacts areas. Replace
fabric & gravel. Gravel placed
over entire ONCA and compacted.

Jim Campbell

(78)

5-22-03 Jim Campbell

All gravel placed. MEI demobilized Wednesday 5-21-03
IES expected to return next week to complete pouring sub well pads
MEI relocated fence to just enclose well fields - keeping center road open.

Tom from ACS reviewed the New fencing and approved. He asked that soil berm at W. edge of ONCA be removed. MWH to review & make plans for the berm.

ONCA ISVE - Austgen installed Motor Control Center & other control boxes inside ONCA blower shed 2

OFCA Cover - Campbell asked about plans to repair erosion in W. edge of OFCA clay cover. MWH will do so, but Todd & Rob need to inspect areas first.

OFCA Trees Campbell asked about plans to for wood logs strip/haul in ~~the~~ OFCA. Pete & Kevin to discuss. Probably no need to do anything.

Jim Campbell

(79)

5-22-03 Jim Campbell

Refinements - Header line from EWSP bldg manifold to thermox 2 to be replaced w/ larger ~~than~~ ^{12"} dia piping. Ryan will do after Global has completed its work

Look Ahead

- Blower shed 1 to arrive next Wed.
- Crane needed to set shed 1
- Ryan to replace influent gas pipes
- IES to complete pouring concrete pads around DPE sub wells
- Global to finalize starter 1 thermox 2
- Austgen to wire blower sheds
- Thermox 2 Training next Tues
- Rob Adams send out correction to EWSP Qthly report

H&S Crane to lift bldg

Need to assess H&S issues w/ opening pipe that don't retaliate
Austgen to hook up elcat power to ONCA blower sheds

Metg Over at 10:45

11:30 Campbell left site

Jim Campbell

80

5/28/03 333 PM

0800 Arrive onsite, partly cloudy, 65°F, 5-wind
Personnel Present:

Lee Orosz MWH
Jerry Clark Ryan
Tom Evans Ryan
Terry Fisk Ryan
Dwaine Kustgen Kustgen
Logg Peters BUSPC
Tom Tines MWH
Activities today

① Blowers (CONCA) delivery and
a new lift

② Thermax 2 operation and switch
GWP vapor stream from catbox to
thermax 2.

③ Kustgen working on electrical for
blower shed.

0810 Spoke with T. Tines, MWH shifting down
Thermax 1 pH probe was in solution and
above control logic to continue pumping
caustic ~~start~~ since pH probe solution
4.7 pH units. Thermax scrubber filled
with a couple of inches of caustic,
MWH purging with clean water, pH
of water currently around 8-9 pH

5/25/03 333 PM

81

units. Ryan construction onsite to replace
8-inch-diameter vapor piping to Thermax
2 in order to transfer 2000 scfm of
Glow. Glomaster on Thermax 2 leaking
Ryan to inspect when unit down. T. Tines
also reported that Global collected air
samples from unit to prove required
destruction efficiency and will have a
precount period. Once precount period
complete, then MWH to resume to begin
compliance sampling of unit. T. Tines reported
switch to program interlock in control
system before switching GWP vapor stream
to Thermax 2.
0840 Observed MWH provide HTS training to
left will be of Howard Grove for ACS
procedures, site hazards and practices
for placing building. MWH to de-energize
line to first blower shed and over head lines
to blower shed.
0855 Went to ONCA. Observed crane on road discharging
ONCA area. Blower shed #1 expected around
1200 today.
36 ft
0900 Kall 41 Photo 35 taking 5 showing DOE well
SVE-86 and exposed clay/aggregates that

(82)

5/25/03

J. J. Smith

- needs gravel cover, concrete pad
- 0905 Observed 1-inch-diameter HDPE pipe extending from backfill at SVE 50. Air line to well is connected - to ask MWH purpose of extended HDPE line. Also observed SVE 46 and adjacent air sparge point not backfilled with gravel and in need of concrete pads to be installed by IES.
- 0910 Roll 41 Photo ²⁷26 facing NE showing SVE 46 and AS-1
- 0915 Roll 42 Photo 1 facing W showing air line from blower shed #2 to air supply line to GWTP
- 0935 Worked on Weekly Reports - MWH left site for supplies. Ryan cutting 12-inch-diameter header pipe. J. Wilcox of Hammond crane asked if he could start unloading equipment with crane - he reported he did not give safety inspection to MWH. I suggested that he should clear with MWH and wait until the safety is approved by MWH.
- 0954 Roll 42 Photo 2 facing E showing Hammond crane operating crane on ONCA to unload equipment.
- 1000 Called T. Tinies - he reported that he spoke with Hammond crane and previously

5/26/03

J. J. Smith

(83)

- received safety information on unit and provided ok for crane to unload equipment using jib since not primary load. Went to ONCA and observed crane finish unloading equipment.
- 1015 Spoke with Rob Adams, GWTP operating well - looking into adding softener for effluent used in scrubbers. R. Adams reported he will inspect ONCA cover erosion today.
- 1100 Observed Hammond crane setting up for lift. L. Drose opening well caps to DPE wells to ventilate prior to connecting wells and air lines tomorrow.
- 1130 Roll 42 Photo 3 facing NE showing Austgen and Hammond crane setting up rigging.
- 1215 - 1300 Left site for lunch. Returned and worked on Weekly reports.
- 1330 Went to ONCA for blower shed lift.
- 1345 Roll 42 Photo 4 facing SW of rigging from crane to new blower shed #1.
- 1350 Light rain started - MWH raised concern that rigging method may damage aluminum on top of shed. Flitway reported frame all still that isn't be damaged.
- 1351 Roll 42 Photo 5 of shed lifted off trailer.

(84)

5/28/03 Jeff E. Patten

- 1353 Roll 42 Photo 6 facing S of MWH moving shed - note openings for vapor lines.
- 1402 Roll 42 Photo 7 facing E of placing blower shed over pipe.
- 1405 MWH encountered problem - pipes location conflicts with steel beam in blower shed. How MWH to place blower shed on RR ties and to cut out steel in floor and shift building to the west so that the beams will clear the pipes / intersecting beams run North-South. MWH to investigate drawings and plans tomorrow. - Appears that the N and S vapor phase pipes are both misaligned with header - look at maybe reconfiguring piping connections back to GWTP and aligning up header with pipes.
- 1440 Roll 42 Photo 8 facing SE of blower shed #1 resting on railroad ties.
- 1442 Roll 42 Photo 9 facing S at ground of westernmost, south wells and misalignment with the header unit.
- 1445 Roll 42 Photo 10 facing N at ground of header, opening in floor and floor beam intersecting vapor pipes. Fliteway believes that the vapor pipes

(85)

5/28/03 Jeff E. Patten

- and manifold may be off by approx 13 inches. Option may be to move building 12 inches east so manifold / header lines up and to house vapor line / water lines back to GWTP in an add on house to shed. Fliteway to return tomorrow and discuss with MWH and to evaluate drawings.
- 1535 Lott site for dry.

Jeff E. Patten
5/28/03

(86)

5/29/03

Jeff E. Peters

1245 Arrive on site, cloudy, 65°F, NW wind

Personnel onsite:

* Lee Cross MWH

Jerry Clark Ryan

Terry Frisk Ryan

* Tom Tinies MWH

* Chris Daly MWH

Tom Evers Ryan

* Todd Lewis MWH

Kevin Fulvey Simulabs

* Rob Adams MWH

* Travis Klingforth MWH

Mike Chernoweth Simulabs

* Leigh Peters BVSPC

Activities Today:

① Construction Meeting

② Ryan installing 12-inch diameter pipe to
Thermox 2

1300 Roll 42 photo 11 facing E of Ryan

installing 12-inch piping from thermox 2

1315 Spoke with C. Daly - MWH evaluating
options for ONCA blowershed #1. MWH
inspection of CA cover.1320 Went to OFCA - MWH leaving and
completed walk through

Jeff E. Peters

(87)

5/29/03

Jeff E. Peters

1330 Spoke with R. Adams - he reported significant
erosion along W portion of cap - looking in to
erosion blanket, possibly putting rip rap
where previous barge located. Also looking
at ponding at EN20C - possibly re-roll. I expressed
concern that rolling may not be sufficient
since rolling was remedy last year and did
not seem to sufficiently address issue. MWH
to continue to investigate.

1340 Went to ONCA - looked at blowersheds.

1400 Weekly Construction Mtg

Attendees - * on previous plus

Kevin Adler EPA Prabakar Kasarabada IGC

Peter Vagt MWH

H+S: No incidents, Austgen + Ryan working onsite

MWH terminated relationship with Imperial
Crane. High caustic in thermox 1 and leaking
caustic pump in GWTP. MWH notified personnel
and set up barricades.

GWTP: Plant op at 20 gpm - down on Tues
because of high pH from caustic in thermox 1.
MWH resolved pH issue - plant online. ONCA
wells currently not online - will bring more
online once signalization tank vapor
stream diverted to thermox 2.

Jeff E. Peters

(88)

5/29/03

Jeff E. Peters

MWH expects to be in maintenance pumping by next weekend.

Thermox 1+2: Thermox 2 operating with OFCA vapors as of 5/23. Thermox 2 shut down today + yesterday for Ryan to install 12-inch-diameter piping. MWH to resume tomorrow.

MWH performing maintenance on float switch in OFCA blower shed. MWH to perform maintenance on thermox 1.

Global training on Thermox 2 on Tuesday. Global to return to recalibrate system with 12-inch line.

ONCA blower shed #1 supported 2 NRR ties - MWH to place + modify building next week. Ryan to then complete piping installation.

ONCA yard piping: IES to pour remaining concrete pads next week. MWH reconfigured fence - to remain until asphalt is placed.

Design Refinements: Modification to ONCA blower shed #1. MWH inspected OFCA for erosion + to develop plan next week. ECI to resurvey OFCA

Jeff E. Peters

Jeff E. Peters

(89)

5/29/03

Look Ahead: Wire ONCA blower sheds - modify sheds. Carbon changeout on 6/16, Crane lift for building.

H+S: Crane lift, ventilate + monitor ONCA blower shed. Confined space during carbon changeout. R. Stein having physical.

1445 Mtg. Conclusion - next meeting 6/6/03 @ 10 AM.

1510 Went to ONCA + observed MWH measure ONCA blower shed slab + piping dimensions. MWH confirmed its measurements that it gave to Friteway. MWH reported it was likely to extend building west to enclose piping to GRTP after moving shed east to line up manifold with vapor wells.

1555 Left site for dry

~~Jeff E. Peters~~
5/29/03



Site: American Chemical Services, Inc.
 Proj. # 46526
 Roll: 39 Photo #26
 Date: 05-01-03 Time: 09:25
 Photographer: Larry Campbell
 Description: Photo facing south-southwest showing truck dumping gravel to the west of the ONCA SBPA ISVE system blower shed concrete slab.



Site: American Chemical Services, Inc.
 Proj. # 46526
 Roll: 39 Photo #27
 Date: 05-06-03 Time: 09:35
 Photographer: Larry Campbell
 Description: Photo facing northwest showing MEI laying geotextile fabric around ONCA SBPA ISVE well SVE-58.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 40 Photo #1

Date: 05-06-03 Time: 09:40

Photographer: Larry Campbell

Description: Photo facing southeast showing MEI unloading gravel for placement on the ONCA SBPA interim cover.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 40 Photo #2

Date: 05-06-03 Time: 09:45

Photographer: Larry Campbell

Description: Photo facing northwest showing MEI placing geotextile fabric on the ONCA SBPA interim clay cover.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #3
 Date: 05-06-03 Time: 10:05
 Photographer: Larry Campbell
 Description: Photo facing south showing D5 dozer spreading gravel near ONCA SBPA ISVE well SVE-58.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #4
 Date: 05-06-03 Time: 10:25
 Photographer: Larry Campbell
 Description: Photo facing northwest showing MEI digging a trench through the berm located on the west edge of the ONCA SBPA to drain ponded water.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #5
 Date: 05-06-03 Time: 10:35
 Photographer: Larry Campbell
 Description: Photo facing east showing a 6-inch-deep erosion gully in the interim clay cover on the western edge of the ONCA SBPA. Note 7-1/2-inch tall field book.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #6
 Date: 05-06-03 Time: 10:42
 Photographer: Larry Campbell
 Description: Photo facing north showing the additional gravel placed over the vapor yard piping near ONCA SBPA ISVE well SVE-71 to protect the piping.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #7
 Date: 05-06-03 Time: 10:50
 Photographer: Larry Campbell
 Description: Photo facing south-southwest showing the concrete pad installed at the flushmount wells located in the access road.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #8
 Date: 05-09-03 Time: 11:00
 Photographer: Larry Campbell
 Description: Photo facing southeast from the railroad tracks after heavy rains showing the OFCA retention pond.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 40 Photo #9

Date: 05-06-03 Time: 11:10

Photographer: Larry Campbell

Description: Photo facing east of the ONCA showing the geotextile and gravel placement. Note erosion gullies (see Photo 5) and drainage trench (see Photo 4).

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 40 Photo #10

Date: 05-06-03 Time: 11:15

Photographer: Larry Campbell

Description: Photo facing southeast of the OFCA showing the retention basin and grass covered cover taken from the biotank.



Site: American Chemical Services, Inc.

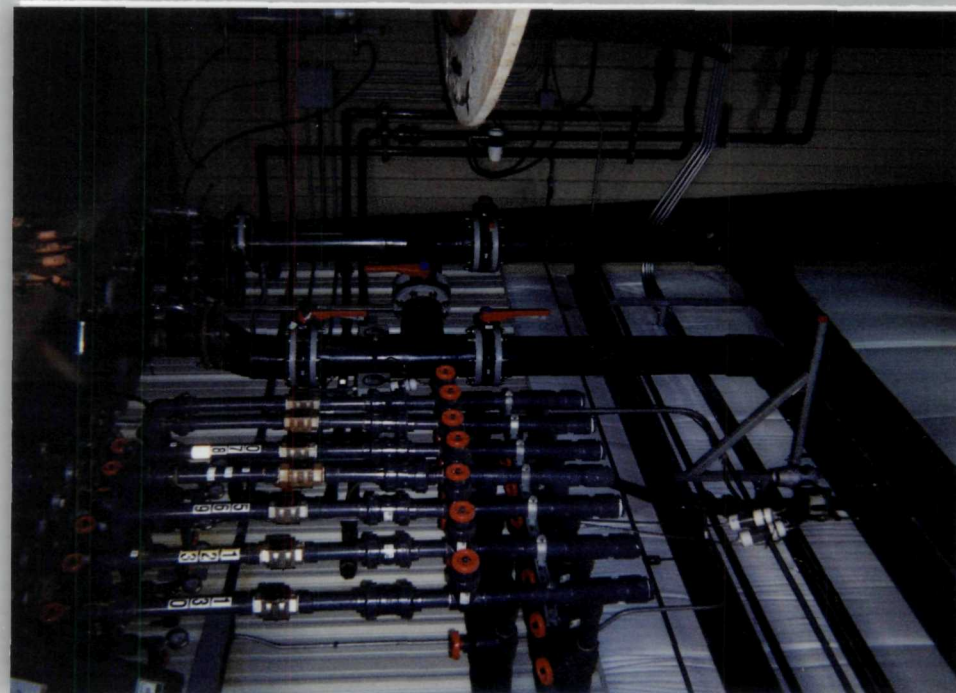
Proj. #: 46526

Roll: 40 Photo #11

Date: 05-06-03 Time: 11:18

Photographer: Larry Campbell

Description: Photo facing west showing the constructed pond where the PCB excavation was completed in the wetlands west of GWTP.



Site: American Chemical Services, Inc.

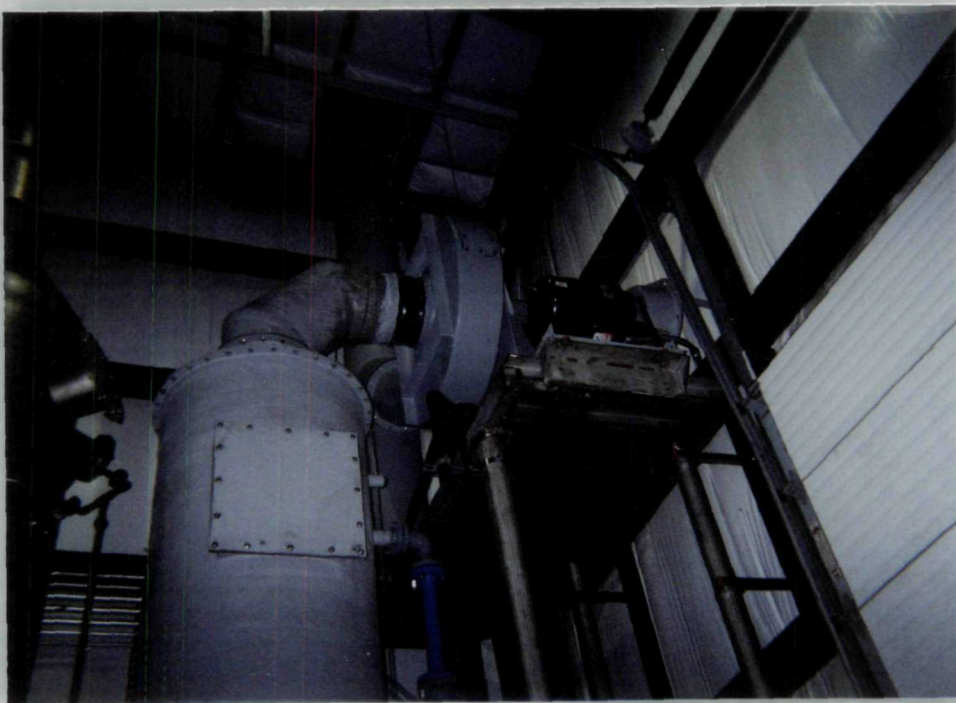
Proj. #: 46526

Roll: 40 Photo #12

Date: 05-06-03 Time: 11:30

Photographer: Larry Campbell

Description: Photo facing northwest at the ISVE air inlet in the GWTP showing the crossover piping to allow ONCA or OFCA ISVE vapors to be treated in either thermal oxidizer.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 40 Photo #13

Date: 05-08-03 Time: 07:55

Photographer: Leigh Peters

Description: Photo facing southwest showing the blower and exhaust stack installed on the elevated platform for the scrubber unit associated with Thermal Oxidizer Unit 2.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 40 Photo #14

Date: 05-08-03 Time: 08:25

Photographer: Leigh Peters

Description: Photo facing west showing the gravel placed south of the blower shed. Note gravel fans out from one central location.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #15
 Date: 05-08-03 Time: 08:30
 Photographer: Leigh Peters
 Description: Photo facing west showing the ponded water at the ACS building located on the southeastern portion of the ONCA SBPA.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #16
 Date: 05-08-03 Time: 08:40
 Photographer: Leigh Peters
 Description: Photo facing northeast showing MEI placing gravel over the yard piping near ONCA SBPA ISVE well SVE-73.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 40 Photo #17

Date: 05-08-03 Time: 12:30

Photographer: Leigh Peters

Description: Photo facing north showing the western portion of the ONCA SBPA interim clay cap that was regraded to mitigate erosion gulleys.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 40 Photo #18

Date: 05-09-03 Time: 13:05

Photographer: Larry Campbell

Description: Photo facing east showing Austgen installing the conductor on poles to the ONCA SBPA ISVE system blower sheds.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #19
 Date: 05-09-03 Time: 13:55
 Photographer: Larry Campbell
 Description: Photo facing northwest showing the
 ONCA SBPA ISVE system blower shed
 building #2 on delivery truck. Note crane
 in background.

Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #20
 Date: 05-09-03 Time: 13:57
 Photographer: Larry Campbell
 Description: Photo facing northwest showing MWH
 and Imperial Crane operator planning the
 lift. Note Austgen personnel in
 background stringing electric cable.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #21
 Date: 5-09-03 Time: 14:00
 Photographer: Larry Campbell
 Description: Photo facing southwest showing the
 ONCA SBPA ISVE system blower shed
 building #2 lifted off of the delivery truck.



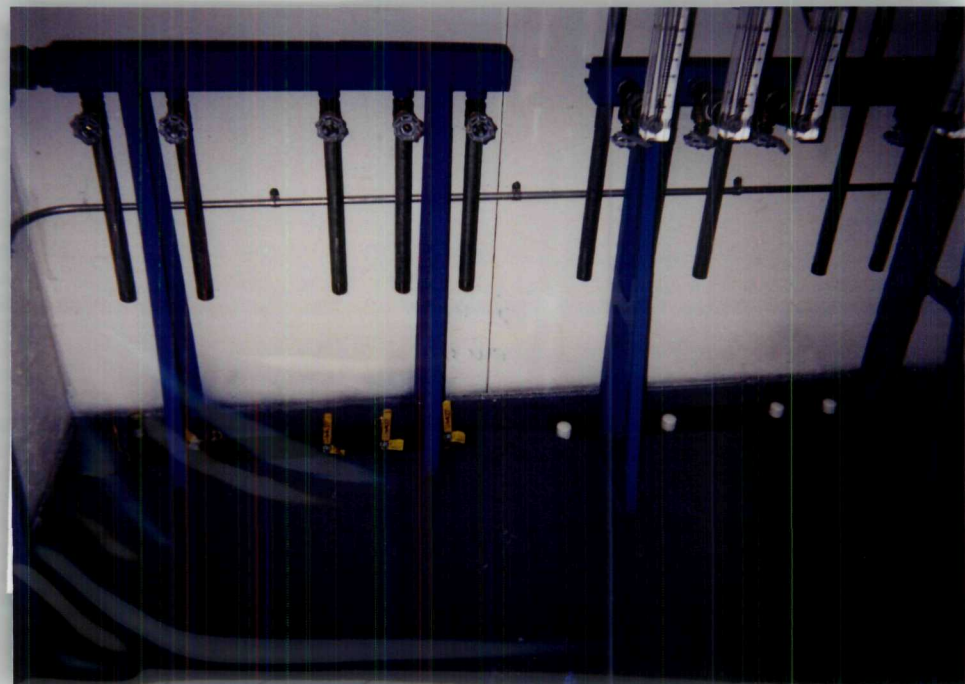
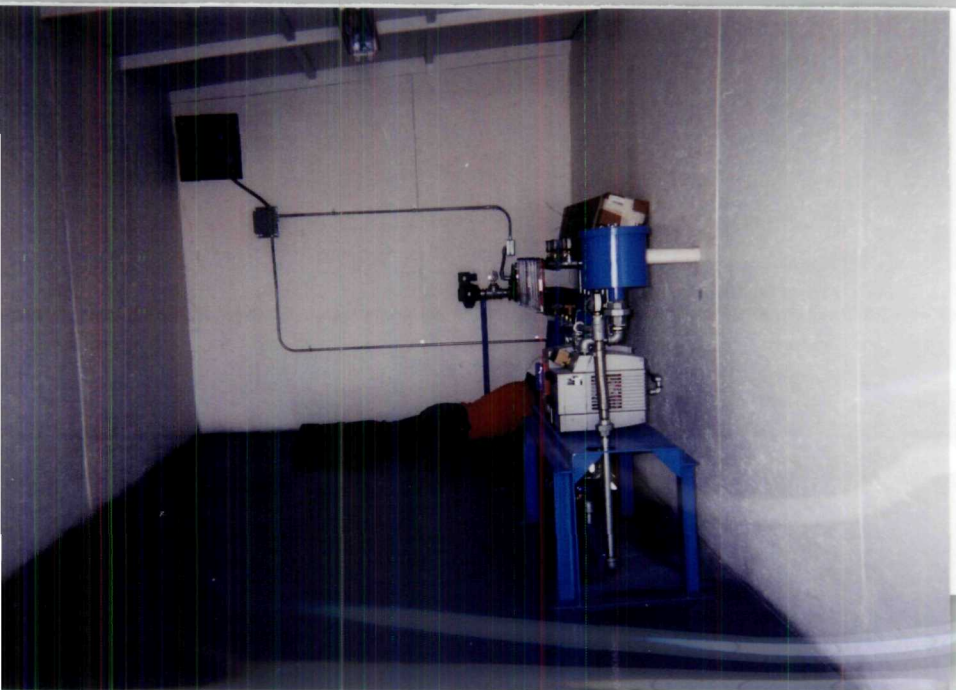
Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #22
 Date: 05-09-03 Time: 14:03
 Photographer: Larry Campbell
 Description: Photo facing northwest at the ONCA
 SBPA ISVE system blower shed building
 #2 being moved over the concrete slab
 foundation.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #23
 Date: 05-09-03 Time: 14:05
 Photographer: Larry Campbell
 Description: Photo facing west showing the ONCA
 SBPA ISVE system blower shed building
 #2 being aligned with the piping in the
 concrete slab foundation.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 40 Photo #24
 Date: 05-09-03 Time: 14:07
 Photographer: Larry Campbell
 Description: Photo facing east showing the ONCA
 SBPA ISVE system blower shed building
 #2 being lined up over the piping.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 40 Photo #25

Date: 05-09-03 Time: 14:15

Photographer: Larry Campbell

Description: Photo facing west into the ONCA SBPA ISVE system blower shed building #2. Note L. Orosz on floor lining up air sparge piping with openings in the floor.

Site: American Chemical Services, Inc.

Proj. # 46526

Roll: 40 Photo #26

Date: 05-09-03 Time: 14:20

Photographer: Larry Campbell

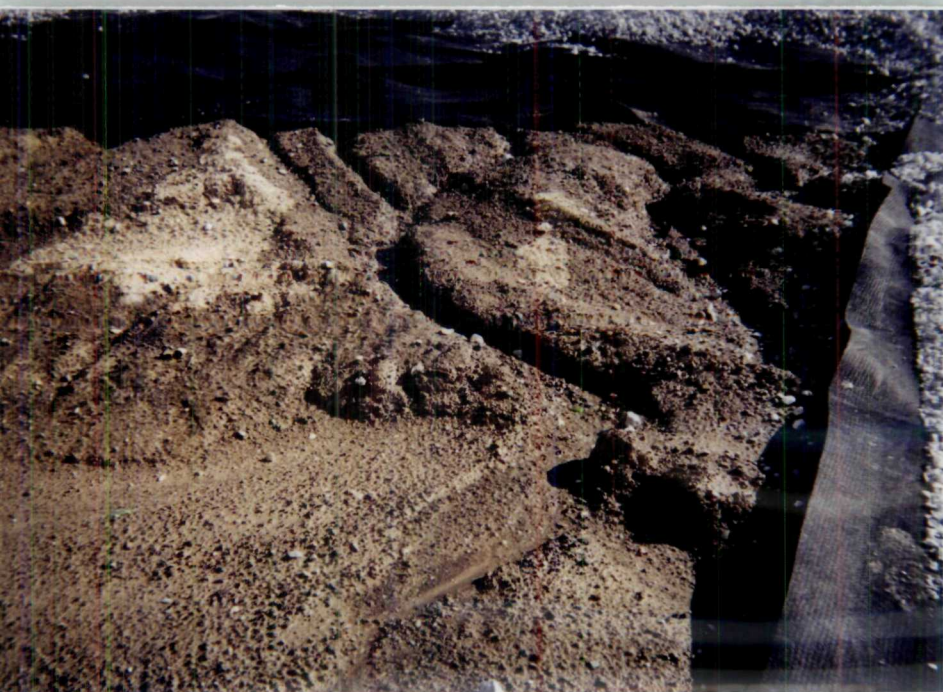
Description: Photo facing north inside the ONCA SBPA ISVE system blower shed building #2 showing the tight fit of the air sparge and DPE well water lines through the floor.



Site: American Chemical Services, Inc.
 Proj. # 46526
 Roll: 40 Photo #27
 Date: 05-09-03 Time: 14:35
 Photographer: Larry Campbell
 Description: Photo facing southeast showing the
 ONCA SBPA ISVE system blower shed
 building #2 setting on the pad.



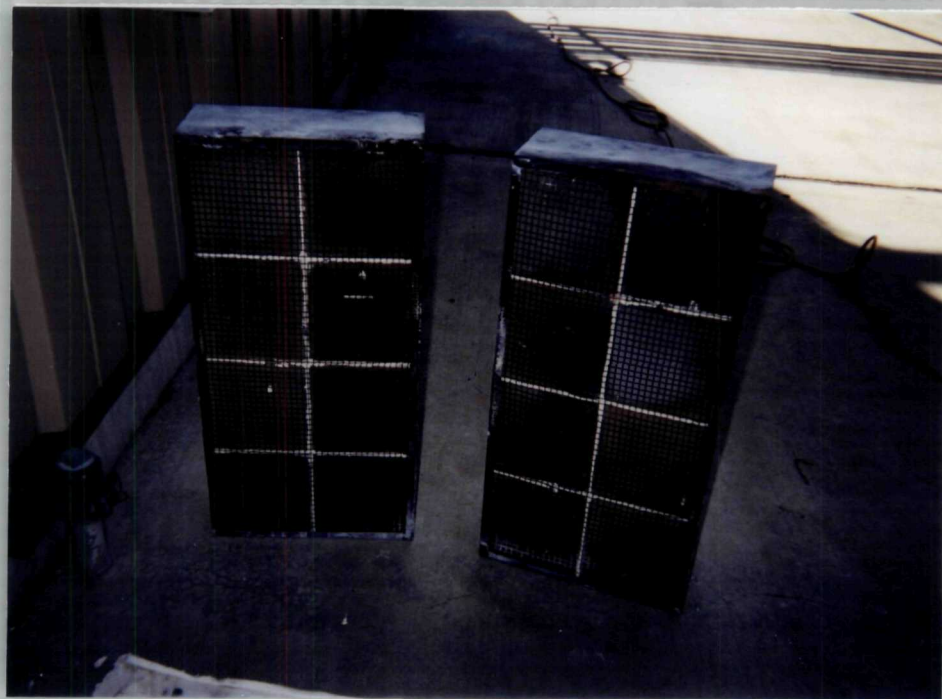
Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 41 Photo #1
 Date: 05-13-03 Time: 08:30
 Photographer: Leigh Peters
 Description: Photo facing south showing erosion in the
 northern portion of the ONCA SBPA
 interim clay cover, east of the ACS break
 building.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 41 Photo #2
 Date: 05-13-03 Time: 08:32
 Photographer: Leigh Peters
 Description: Photo facing north showing the fresh erosional trails in the south portion of the ONCA SBPA interim clay cover near the railroad tracks.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 41 Photo #3
 Date: 05-13-03 Time: 08:35
 Photographer: Leigh Peters
 Description: Photo facing northeast showing erosion rivulettes on the western portion of the ONCA SBPA interim clay cover that formed after heavy rains.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #4

Date: 05-13-03 Time: 09:25

Photographer: Leigh Peters

Description: Photo facing west showing the catalyst and build-up of solid material (white) on the inlet site of the catalyst from the catalytic oxidizer in the GWTP.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #5

Date: 05-13-03 Time: 09:27

Photographer: Leigh Peters

Description: Photo facing east showing the effluent air side of the catalyst from the catalytic oxidizer in the GWTP.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 41 Photo #6
 Date: 05-13-03 Time: 09:40
 Photographer: Leigh Peters
 Description: Photo facing west from EW-20C manhole
 showing the ponded water on the OFCA
 cover.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 41 Photo #7
 Date: 05-13-03 Time: 09:42
 Photographer: Leigh Peters
 Description: Photo facing west at the ground showing
 the erosion and exposed conduit for the
 fiber optic cable between the GWTP and
 the OFCA blower shed.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #8

Date: 05-13-03 Time: 09:50

Photographer: Leigh Peters

Description: Photo facing north showing a deep erosional gully in the ONCA SBPA interim clay cover on the southern portion of the cover.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #9

Date: 05-15-03 Time: 09:25

Photographer: Larry Campbell

Description: Photo facing east showing the ONCA SBPA gravel in piles and new rolls of geotextile fabric for placement.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 41 Photo #10
 Date: 05-13-03 Time: 09:26
 Photographer: Larry Campbell
 Description: Photo facing northwest from the biotank showing vapor emitted from the catalytic oxidizer (right) and Thermal Oxidizer Unit 1 (left). Thermal Oxidizer Unit 2 far left.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 41 Photo #11
 Date: 05-15-03 Time: 11:30
 Photographer: Larry Campbell
 Description: Photo facing southeast showing the Global technician programming Thermal Oxidizer Unit 2.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #12

Date: 05-15-03 Time: 09:43

Photographer: Larry Campbell

Description: Photo facing east at the west end of the ONCA SBPA interim clay cover showing attempts to place and grade clay to fill erosion rivlets in the cover.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #13

Date: 05-15-03 Time: 09:44

Photographer: Larry Campbell

Description: Photo facing east at the west end of the ONCA showing the geotextile fabric placed in erosion gully and filled with gravel.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #14

Date: 05-15-03 Time: 09:48

Photographer: Larry Campbell

Description: Photo facing north showing torn geotextile fabric with soft clay protruding up through the geotextile fabric, 20 feet east of Photo 13.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #15

Date: 05-15-03 Time: 09:53

Photographer: Larry Campbell

Description: Photo facing east from the ONCA SBPA ISVE blower shed building #2 showing the graded and compacted gravel on the ONCA SBPA.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #16

Date: 05-15-03 Time: 13:00

Photographer: Larry Campbell

Description: Photo facing east showing an erosion
gully in the west edge of the OFCA
engineered cover near extraction well
EW-13A.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #17

Date: 05-15-03 Time: 13:10

Photographer: Larry Campbell

Description: Photo facing east at erosion gully in the
west edge of the OFCA engineered cover
near piezometer P116.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #18

Date: 05-15-03 Time: 13:20

Photographer: Larry Campbell

Description: Photo facing southeast showing the OFCA vegetative cover and the results of recent mowing. Taller grass on the left was cut one week ago.

Site: American Chemical Services, Inc.

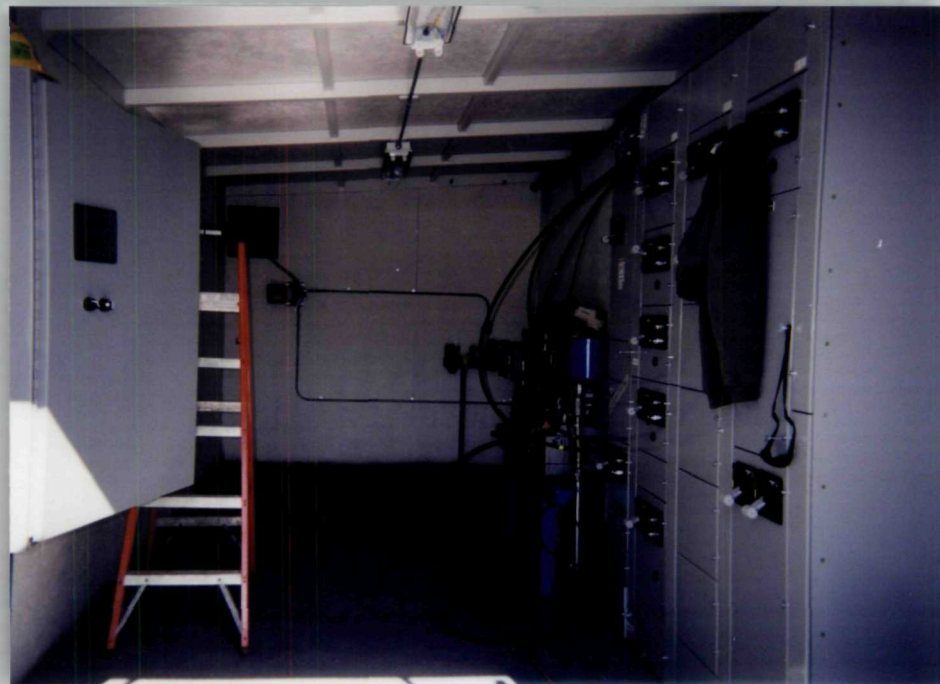
Proj. #: 46526

Roll: 41 Photo #19

Date: 05-22-03 Time: 09:20

Photographer: Larry Campbell

Description: Photo facing east showing the completed ONCA SBPA gravel cover and the repositioned fence surrounding the ISVE well field.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #20

Date: 5-22-03 Time: 09:25

Photographer: Larry Campbell

Description: Photo facing northwest showing the vapor from Thermal Oxidizer Unit 2 (left) and the catalytic oxidizer (right).

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #21

Date: 05-22-03 Time: 09:35

Photographer: Larry Campbell

Description: Photo facing west showing the interior of ONCA SBPA ISVE blower shed building #2 where the motor control center has been installed.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 41 Photo #22
 Date: 05-22-03 Time: 09:40
 Photographer: Larry Campbell
 Description: Photo facing west showing DPE well SVE-50 not completely backfilled and awaiting concrete pad installation on the east end of the ONCA SBPA gravel cover.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 41 Photo #23
 Date: 05-22-03 Time: 09:46
 Photographer: Larry Campbell
 Description: Photo facing north showing the existing catch basin grate on the south edge of the ONCA SBPA gravel cover.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 41 Photo #24

Date: 05-22-03 Time: 09:48

Photographer: Larry Campbell

Description: Photo facing northeast showing the western edge of the ONCA SBPA gravel cover.

Site: American Chemical Services, Inc.

Proj. # 46526

Roll: 41 Photo #25

Date: 05-22-03 Time: 09:49

Photographer: Larry Campbell

Description: Photo facing east showing the western edge of the ONCA SBPA gravel cover.



Site: American Chemical Services, Inc.
 Proj. # 46526
 Roll: 41 Photo #26
 Date: 05-28-03 Time: 14:35
 Photographer: Leigh Peters
 Description: Photo facing south showing DPE well SVE-86 and the exposed clay and geotextile that are awaiting backfill and concrete pad installation.



Site: American Chemical Services, Inc.
 Proj. # 46526
 Roll: 41 Photo #27
 Date: 05-28-03 Time: 09:10
 Photographer: Leigh Peters
 Description: Photo facing northeast showing SVE-46 and AS-1 that are awaiting backfill and concrete pad installation.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 42 Photo #1

Date: 05-28-03 Time: 09:15

Photographer: Leigh Peters

Description: Photo facing west showing the air line from the ONCA SBPA ISVE system blower shed building #2 to the air supply line from the GWTP.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 42 Photo #2

Date: 05-28-03 Time: 09:54

Photographer: Leigh Peters

Description: Photo facing east showing Central Crane on ONCA SBPA unloading equipment for the crane lift of ONCA SBPA ISVE system blower shed building #1.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 42 Photo #3
 Date: 05-28-03 Time: 11:30
 Photographer: Leigh Peters
 Description: Photo facing northeast showing Austgen and Central Crane setting up the rigging for the crane lift.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 42 Photo #4
 Date: 05-28-03 Time: 13:45
 Photographer: Leigh Peters
 Description: Photo facing southwest showing the rigging from the crane to lift ONCA SBPA ISVE system blower shed building #1.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 42 Photo #5
 Date: 05-28-03 Time: 13:51
 Photographer: Leigh Peters
 Description: Photo facing showing the ONCA SBPA
 ISVE system blower shed building #1
 being lifted off the trailer.



Site: American Chemical Services, Inc.
 Proj. #: 46526
 Roll: 42 Photo #6
 Date: 05-28-03 Time: 13:53
 Photographer: Leigh Peters
 Description: Photo facing south showing MWH
 moving the ONCA SBPA ISVE system
 blower shed building #1. Note openings
 in flooring for yard piping.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 42 Photo #7

Date: 05-28-03 Time: 14:02

Photographer: Leigh Peters

Description: Photo facing east showing MWH attempting to place the ONCA SBPA ISVE system blower shed building #1 over the existing piping.

Site: American Chemical Services, Inc.

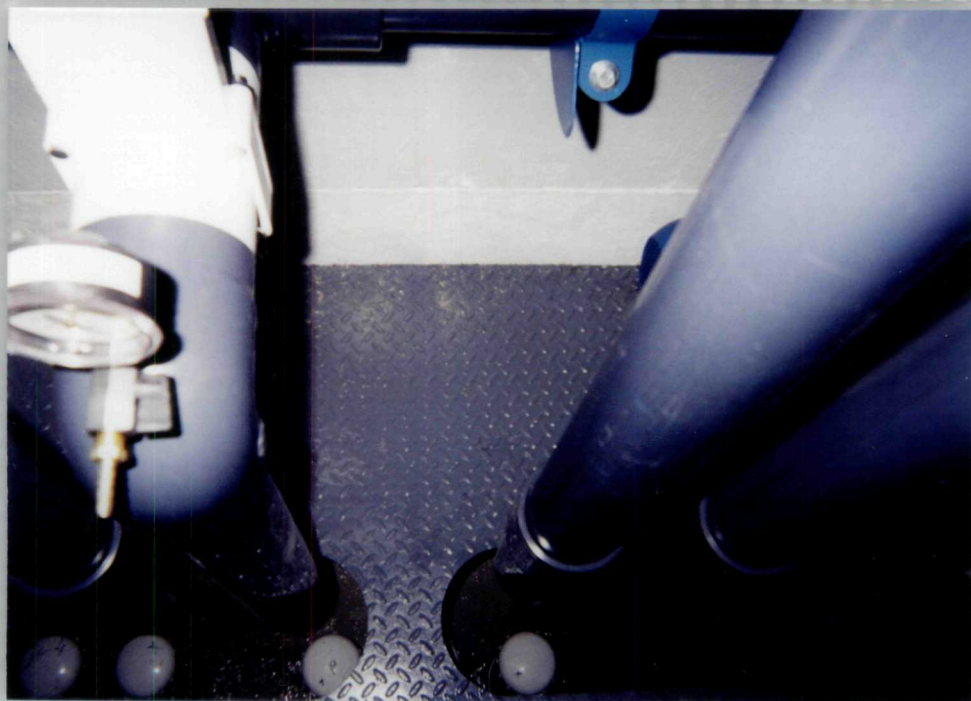
Proj. #: 46526

Roll: 42 Photo #8

Date: 05-28-03 Time: 14:40

Photographer: Leigh Peters

Description: Photo facing southeast showing the ONCA SBPA ISVE system blower shed building #1 temporarily placed on railroad ties.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 42 Photo #9

Date: 05-28-03 Time: 14:42

Photographer: Leigh Peters

Description: Photo facing south at the ground of the south wells and misalignment between the piping and manifold in the ONCA SBPA ISVE system blower shed building #1.

Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 42 Photo #10

Date: 05-28-03 Time: 14:45

Photographer: Leigh Peters

Description: Photo facing north at the ground of header, opening in floor and floor beams intersecting the vapor lines in blower shed building #1.



Site: American Chemical Services, Inc.

Proj. #: 46526

Roll: 42 Photo #11

Date: 05-29-03 Time: 13:00

Photographer: Leigh Peters

Description: Photo facing east showing Ryan Construction replacing the 8-inch-diameter influent piping to Thermal Oxidizer Unit 2 with a 12-inch-diameter pipe.